CDM

Report

Teterboro Airport
Teterboro, New Jersey

Phase I Environmental Site Assessment

Final Report

Volume I of III

Prepared for:

THE PORT AUTHORITY OF NY & NJ
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June 12, 1998

- Via Federal Express -

Mr. Marvin Kirschner, P.E.
Chief Environmental Engineer
Engineering Department
Port Authority of NY & NJ
One World Trade Center
New York, NY 10048

Subject: ***Final Phase I Environmental Site Assessment Report***
Teterboro Airport, Teterboro, Little Ferry & Moonachie Boroughs
Bergen County, New Jersey

Dear Mr. Kirschner:

Camp Dresser & McKee (CDM) is pleased to provide you with five (5) copies of the Final Environmental Site Assessment (ESA) report for the Teterboro Airport, located in Teterboro, Little Ferry and Moonachie Boroughs in Bergen County, New Jersey. We have provided you with five copies of the text (Volume I) and the appendices (Volume II and III).

Should you have any questions or comments, please contact either of the undersigned at (732) 225-7000.

Very truly yours,

CAMP DRESSER & McKEE INC.

Robert J. Gleason, P.E.
Vice President

Robert J. Gleason for
Eric P. Fox
Project Manager

Enclosure

cc: B. Walch, P.E., w/o attachments

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Section 1
Executive Summary

1.1 Background

Pursuant to Call-in-Agreement No. 415-94-06 and Environmental Services Agreement dated January 12, 1998 between Camp Dresser & McKee Inc. (CDM) and The Port Authority of New York and New Jersey (Port Authority), a Phase I Environmental Site Assessment (ESA) was performed on the Teterboro Airport (Airport) located in the municipalities of Little Ferry, Moonachie and Teterboro, in Bergen County, New Jersey. This Phase I ESA was performed in general accordance with American Society for Testing and Materials (ASTM) standard designation E1527-97 with the purpose of identifying recognized environmental conditions at the Airport. Also, as part of the ESA report, information on environmental permit compliance and freshwater wetlands was compiled.

The Airport is on land owned by the Port Authority since April 1, 1949 and has been operated by American Port Services, Inc (APSI), formerly Johnson Controls World Services (Johnson Controls) since 1986. Teterboro Airport is designated as a "reliever" Airport according to the National Plan of Integrated Airport Systems that serves the New York/New Jersey metropolitan area.

The Airport comprises approximately 827 acres which can be divided into three functional areas:

- Approximately 408 acres are runways, aprons and taxi-ways
- 87 acres of terminals and hangars and access roads
- 332 acres of open undeveloped lands, including freshwater wetlands and their buffer and transition zones

Ten major tenants and 53 minor tenants occupy 19 hangars and 11 buildings at the Airport.

The results of this ESA are based on information provided to CDM during interviews with city, county, state, and federal personnel; interviews with representatives of the Port Authority and APSI, primary tenants, and other persons familiar with the Airport; evaluation of historical land use records; review of federal, state, and local regulatory agency files and electronic databases; review of the Port Authority and Teterboro Airport Internet sites; and observations made by CDM during the site walkthroughs conducted between March 9, 1998 and March 20, 1998.

1.2 Recognized Environmental Conditions

Based on these sources of information, the following eleven recognized environmental conditions (RECs) at the Airport were identified:

- No. 1 - As a result of surface and subsurface discharges, soil and groundwater are contaminated with petroleum-based materials at the Exxon Fuel Farm located on Malcolm Avenue. The most recent data set (July 11, 1997) reviewed by CDM reports benzene as the only compound detected in concentrations exceeding New Jersey Department of

Environmental Protection (NJDEP) Groundwater Quality Criteria (GWQC) in three on-site wells. Linear regression analysis of benzene concentrations performed on wells MW-1, MW-6, MW-11, and MW-12 indicate a decreasing trend of benzene concentrations; however, an increasing trend was depicted in MW-6 and MW-11. During the monitoring period of June 1995 to July 1997, measurable levels of liquid phase hydrocarbon (LPH) have been routinely observed. Passive bailers installed in 1993 and 1994 have recovered approximately 80 gallons of LPH. The data indicates that the recovery rates have decreased. The Exxon investigation appears to be proceeding without NJDEP involvement. Available documentation is insufficient to render an opinion for contaminated off-site groundwater migration.

- No. 2 - As a result of subsurface discharges at the Texaco Fuel Farm, also located on Malcolm Avenue, soil and groundwater are contaminated with petroleum-based materials. According to a Remedial Investigation Report dated January 20, 1998, 73 tons of hydrocarbon-impacted soil was excavated from the vicinity of a 1,000-gallon slop fuel underground storage tank (UST) during removal. Post-excavation soil samples indicate that benzene, toluene and xylene are present in soil above the NJDEP soil cleanup criteria in the southwestern corner of the excavation along the wall of the secondary containment area. Analysis of a groundwater sample collected from the excavation indicated that benzene, methylene chloride, and lead concentrations exceed NJDEP GWQC. Based on these findings, additional soil and groundwater remedial investigation activities are proposed. The investigation at the Texaco facility is being conducted with oversight from the NJDEP. Available documentation is insufficient to render an opinion whether contaminated groundwater at the site has migrated off-site.

- No. 3 - Thirty-two USTs containing petroleum-based substances such as diesel fuel, gasoline, and waste oil have been taken out of service at the Airport. The USTs were located throughout the Airport; however, reports on the closures and removal efforts between 1968 and 1997 provide little or no documentation on the age, removal procedures, or integrity of these tanks. According to United States Environmental Protection Agency (USEPA) statistics, bare steel USTs have an average life expectancy of approximately 20 years. Given the age of the Airport, many of the tanks may have exceeded this age. Available documentation is insufficient to render an opinion whether these USTs adversely impacted soil and/or groundwater or whether any residual impacts remain.

- No. 4 - Two active USTs at Buildings 9 and 40 (used by APSI) containing heating oil and diesel fuel have not been integrity tested and are not equipped with corrosion protection, leak detection, spill prevention, or overfill protection mechanisms. Records indicate that these tanks were installed no later than 1970. Available documentation is insufficient to render an opinion whether these USTs adversely impacted soil and/or groundwater or whether any residual impacts remain.

- No. 5 - Nineteen USTs associated with oil/water separators exist at various locations at the Airport. Based on information provided to CDM, all nineteen meet the regulatory definition of an UST. No information on the integrity of these units has been provided to CDM. Although current maintenance practices employed by the tenants appear satisfactory, soil

and/or groundwater may have been impacted by these USTs in the past if the oil/water separators were not maintained.

- No. 6 - Evidence (fill ports, vent lines) of five additional USTs were observed by CDM during the site reconnaissance. Therefore, improperly closed or abandoned USTs may remain at these locations and potential environmental impacts from these USTs have not been evaluated.

- No. 7 - Two on-site septic systems served Hangars 15 and 16. These were abandoned when the buildings were connected to the municipal sanitary sewer. Septic systems can pose health or environmental threats if they received inappropriate wastes such as solvents or cleaners and are common sources of soil and groundwater contamination.

- No. 8 - Stained soil was observed within a fenced area containing empty 55-gallon drums located between Hangars 3 and 4. The source of the staining is not known, although the stains were reported in an Atlantic Aviation site inspection report dated July 1992. Without further information, the lateral and vertical extent of any stained areas remains unknown.

- No. 9 - Stained soil was observed on the surface of the stone-covered truck parking lot at the Exxon Fuel Farm on Malcolm Road. Historic information shows trucks have been parked on this unpaved section for many years. Although current visual conditions do not show the area to be extensively stained, the lateral and vertical extent of the staining or potential contamination from historic discharges cannot be defined.

- No.10 - Stained soil was observed on the surface of the grass-covered area adjacent to the outside fuel pump at Building 40 (lighting vault). Although the magnitude of current conditions does not appear to be extensive, the lateral and vertical extent of the stained areas or potential contamination from historic discharges cannot be determined.

- No. 11 - Based on regional groundwater flow direction and the proximity to the Airport, nine off-site facilities in the environmental database search report could pose a potential recognized environmental concern for groundwater entering the Airport property. Additional research beyond the scope of this ESA would be required to determine if these facilities have impacted the subject property.

1.3 Permit and Compliance Status

Based on the review of information and site reconnaissance, the completeness of environmental permits at the Airport is generally appropriate. APSI maintains records on environmental issues of concern for an airport such as underground storage tanks and storm water management. Management of hazardous materials and wastes is left largely up to the tenants. The mechanisms in place for the Port Authority and APSI to oversee permits is satisfactory although, to a large extent, it is the tenants responsibility to notify APSI when an activity which may require a permit is planned.

Based on the information provided, the following permit issues were identified:

- The wetlands mitigation plan has been approved by the Army Corps of Engineers and can be implemented once APSI fulfills the financial requirement of the Corps approval letter.
- The storm water permit for the Airport may need to be revised to include all potential deicing locations or additional outfalls.
- All but one of the nineteen USTs associated with the oil/water separators do not meet the December 1998 performance criteria mandated by the USEPA. With the exception of the tank associated with the oil/water separator located at First Aviation (Hangar 1), these tanks must either be upgraded or removed by December 1998 or they will be in violation of state and federal regulations.
- A 1,500-gallon diesel fuel UST located at the Lighting Vault (Building 40) will need to be upgraded or removed by December 1998 to avoid violation of state and federal regulations.

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Section 2
Introduction

2.1 Assessment Objectives

This Phase I ESA was performed in general accordance with American Society for Testing and Materials (ASTM) standard designation E1527-97 with the purpose of identifying recognized environmental conditions (REC) on the Airport property. The term recognized environmental conditions, as defined in ASTM E1527-97, means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

CDM also compiled information on environmental permits and an ongoing freshwater wetlands mitigation project.

2.2 Assessment Limitations

Due to the size of the site, the limited access to some Airport property areas (because of security measures), and extensive wetlands areas, CDM did not inspect all non-constructed areas of the site. CDM relied upon the representations made by Johnson Controls personnel regarding the extent of the uninspected fields and wetlands. CDM focused the site reconnaissance on those buildings or areas identified by the owners representatives as:

- Areas where hazardous materials, hazardous wastes, bulk chemicals or petroleum hydrocarbons are used, generated, discharged or stored
- Areas where spills of hazardous substances, wastes or petroleum hydrocarbons have occurred
- Areas where underground storage tanks existed or formerly existed
- Areas where aboveground storage tanks existed
- Areas where subsurface disposal systems may have existed

Additionally, due to the project scope limitations, CDM visually assessed the general condition and current use of the adjoining properties, but did not conduct interviews with the owner/operators of adjoining properties as stipulated by the ASTM Standard. According to each representatives that accompanied CDM during the site reconnaissance, only two of the adjoining properties were previously used as a business enterprise with potential environmental concerns. One is the current Exxon Service Station located on the corner of Industrial Avenue and Route 46. The other site is a former gasoline station located at the corner of Redneck Boulevard and Route 46.

This ESA did not include any inquiry with respect to radon, methane, lead in drinking water, formaldehyde, endangered species, light ballasts, stormwater management practices, or subsurface investigation activities. Also, this report is not a comprehensive site characterization or regulatory compliance audit and should not be construed as such.

2.3 Summary of Qualifications

CDM has been helping clients solve environmental engineering problems for over 50 years. A multidisciplinary consulting organization, CDM has a staff of 2,500 engineers, scientists, and support staff specializing in the innovative solution of environmental challenges. The firm has extensive experience conducting ESAs, remedial investigations/feasibility studies (RI/FS) in accordance with the National Contingency Plan (NCP), risk assessments, soil, and groundwater remediation, and expert testimony. The complex character of many site assessments and the severity of the issues surrounding contaminated soils and environmental management are well suited to CDM's background and capabilities. Our recent experience at hundreds of hazardous waste sites across the country—where CDM staff members have performed site assessments; remedial investigations; feasibility studies; and site planning, design, construction, and operation services—attests to the fact that we can assist clients in any phase of site investigation, negotiating cleanup requirements, and cleanup itself.

Environmental Site Assessment Services

CDM has conducted more than 1,500 environmental audits and site assessments for commercial, industrial, residential, and undeveloped properties. Our work has ranged from relatively simple assessments of property involved in real estate transfers to extremely complex industrial waste sites requiring an evaluation of the nature and extent of contamination.

CDM has conducted more than 1,500 environmental audits and site assessments for commercial, industrial, residential, and undeveloped properties.

The types of facilities CDM has evaluated are numerous—ranging from electronics equipment manufacturers to airports and aircraft manufacturing facilities; electric utilities; refineries; petroleum storage and transfer terminals; electroplating facilities; and chemical facilities. Our clients include Fortune 100 corporations, small industrial operations, and state and municipal service agencies. CDM has also assisted law firms, real estate developers, lending institutions, insurance companies, and investment firms involved in property transactions. Beyond site assessments, CDM has been successful in obtaining approval for groundwater and soil cleanup plans and then implementing actual remediation.

Each assessment is designed to identify potential environmental liabilities so that clients can make informed and environmentally sound decisions. CDM conducts phased assessments—depending on the nature of the specific site—starting with an initial site assessment (Phase I), progressing (if warranted) to a more detailed investigation that includes environmental sampling (Phase II), and

followed by an evaluation of cleanup alternatives/costs and remedial design (Phase III), and remedial implementation (Phase IV).

Resumes of key personnel are included in **Appendix A**.

Section 3
Airport Description and Operations

3.1 Airport Location and Description

The Teterboro Airport is located at the junction of the Boroughs of Teterboro, Moonachie, and Little Ferry in Bergen County, New Jersey. The property has been owned by the Port Authority since April 1, 1949 and used as an airport since the late 1920s. The Airport consists of terminals, hangars, runways, taxiways, administrative offices, and undeveloped parcels consisting mostly of wetlands.

The Airport is prominent to the local landscape as it spans across the western section of the Borough of Teterboro, the eastern section of Hasbrouck Heights, and the northern section of the Borough of Moonachie. The Airport covers 827 acres and is relatively flat. Topographic coverage of the Airport is provided by the U.S. Geological Survey's Weehawken, NJ-NY 7.5 Minute Quadrangle Maps for 1967 (photo-revised in 1981) and is provided in **Figure 3-1**, Airport Location Map.

The topographic map displays mixed paved, developed and vegetated areas throughout the Airport. Elevations are typically within 20 feet of Mean Sea Level (MSL, National Geodetic Vertical Datum of 1929). A tributary to Berry's Creek approaches the Airport from the northwest and establishes the northern property boundary along the Exxon fuel farm located at Malcolm Avenue. The tributary enters the property at a point south of Industrial Avenue and joins a second tributary, which originates from within the south region of the Airport. The creek exits from the southwestern portion of the Airport and continues south approximately one quarter mile and joins a wetland area named Eight Day Swamp. A drainage ditch/creek, referred to as the East Riser Ditch by APSI, establishes the northeastern border and continues south entering the Airport at the south end of Riser Road. East Riser Ditch splits with one tributary extending through the on-site wetland area on the east across Redneck Avenue. The other tributary continues to the south, exits across Moonachie Avenue and continues south to join the Eight Day Swamp.

Hangars, maintenance buildings, garages, administrative offices, paved aircraft parking areas, and a service station occupy most of the northwestern border of the Airport. Hangars and administrative offices also occupy southern and northeastern borders of the Airport. The majority of the remaining property includes runways, taxiways, and grass-covered areas which span the northern edge to the Airport's southeastern and western sections. Undeveloped vegetated areas occupy the majority of the eastern portions of the southern Airport property. Runways 1-19 and 6-24 are located in the center of the Airport. A site plan of the Airport is provided in **Figure 3-2**.

A May 1987 Wetland Delineation Report for Teterboro Airport was prepared by Louis Berger & Associates, Inc and is included in **Appendix B**. A field survey delineated wetland and upland areas at the Airport. Wetlands were identified in the property east of East Riser Ditch extending to Redneck Avenue, and areas surrounding Building No. 72, bounded by Moonachie Avenue to the south, Industrial Avenue to the west, Taxiway F to the north, and Hangars 111 through 114 to the east. Uplands were delineated in the areas adjacent to the runways and taxiways, and filled areas which have historically functioned as upland areas.

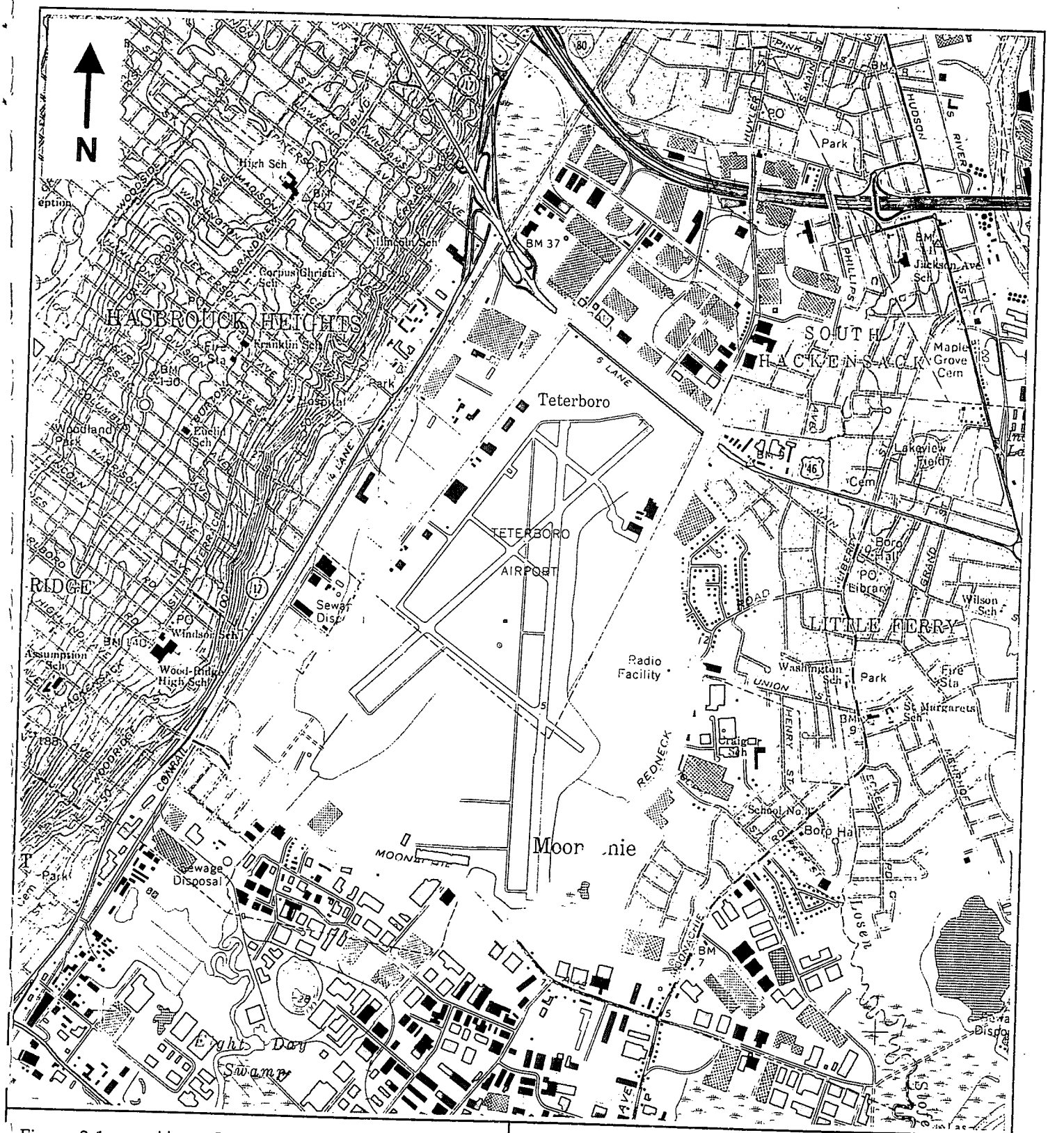

Figure 3-1 Airport Location Map

Topographic Map of

TETERBORO AIRPORT
Teterboro, New Jersey

Source:
U.S.G.S Topographic Map
Weehawken, NJ-NY dated 1961
Photo revised 1981
Scale: 1:24,000 (approximate)

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3.2 Description of Airport Operations

The Airport was built on land acquired in 1917 by Walter C. Teter. It was used by North American Aviation during World War I as an aircraft manufacturing site and subsequently as a base of operations for aircraft designer, Anthony Fokker. It was taken over by the Army Air Corps during World War II and purchased by the Port Authority on April 1, 1949. The oldest airfield in the region, the Airport is designated as a "reliever" airstrip used mainly by corporate and private operators. Two runways exist at the Airport:

- Runway 1-19 which is 7,000 feet long and 150 feet wide
- Runway 6-24 which is 6,043 feet long and 150 feet wide

Both runways are located at a topographic elevation of approximately 9 feet Above Means Sea Level (AMSL).

The Airport operations have been managed by Johnson Controls under various corporate identities since 1970. APSI purchased the Johnson Controls management team at the Airport in 1986. Five on-site, fixed-base operators (FBOs) service transient aircraft, store aircraft, can operator charter services and provide fuel. The remainder of the structures are occupied by a rotating mix of tenants, including general aviation firms, maintenance facilities, repair shops, aircraft interior manufacturers, vehicle storage, customer service, and administrative areas.

Table 3-1 lists the ten major Airport tenants. Throughout this report, the term "major tenants" refers to those operators which have a lease with APSI. The terms "minor tenant" or "sublet" refer to those operators who lease areas from the major tenants. Half of the major tenants at the Airport lease more than one building or hangar from APSI. Jet Aviation leases the most areas; seven hangars and one building.

3.3 Vicinity Characteristics

The general vicinity of the Airport includes industrial/commercial and intermixed residential dwellings. The Airport is bounded to the north by Route 46 East, Industrial Avenue to the west, Riser Road and Redneck Avenue to the east, and Moonachie Avenue to the south. Industrial complexes are located throughout adjoining properties, predominantly the entire span north across Route 46, west across Industrial Avenue, and south across Moonachie Avenue. A few areas of residential dwellings are located to the east across Redneck Avenue and to the southwest across a small portion of Moonachie Avenue.

Two sewage disposal points are identified in close proximity to the Airport on the U.S.G.S. Weehawken, NJ-NY quadrangle. One is located across Industrial Avenue, several hundred feet southwest of Hangar 5. The other is located approximately a quarter mile south of Building 72. The Hackensack River is located 1½ miles to the east of the site.

3.4 Environmental Setting

The Airport is located within the Hackensack River Drainage Basin. Based on general topographical relief of the Airport property, surface water drainage is anticipated to flow to the south. The Hackensack River Basin is contained within the Piedmont Physiographic Province, is dominated by upper Triassic (Carnian) to Lower Jurassic (Hertangian-Simeumurian) non-marine sedimentary stream and lake deposits interbedded with quartz normative, olivine-poor, tholeiitic basaltic lava flows and intruded by diabasic sills and dikes. The beds in the basin generally strike northeast to southwest and dip between 5° to 20° southwest.

The bedrock underlying the site is the Triassic (formerly referred to as the Brunswick) Passaic Formation which consists of a series of altering beds of sandstone, silt stone, shale and conglomerate formed from eroded uplands in fluvial depositional environments along the faulted northwest border.

3.5 Description of Tenant Operations

This section provides observations on the individual major tenant operations during the Airport site reconnaissance conducted between March 9, 1998 and March 20, 1998. Included in this operations description is a summary of the chemical and hazardous materials observed at the time of the site reconnaissance.

Table 3-1
Teterboro Airport Tenant Inventory

Tenant	Hangar (H) or Building (B)
American International Aviation Corp.	H 107
Atlantic Aviation*	B 49 H 2, 3, 4, 12
Exxon Aviation Fuel Farm	N/A
Exxon Service Station	B 34
First Aviation Services*	H 1
Jet Aviation*	H 109, 111, 113, 114, 118, 119, 120 and B 112
Johnson Controls World Services, Inc.	B 9, 27, 33, 40, 70, 72
Million Air*	H 5, 14
Port Authority of NY & NJ**	H 121
Signature Flight Support Group*	H 15, 16, 17
Texaco Aviation Fuel Farm	B 25

Notes:
* *Indicates operating as an FBO.*
** *Airport owner.*

American International Aviation Corporation

American International Aviation Corporation (AIAC) occupies Hangar 107 located at 107 Charles Lindbergh Drive. AIAC assumed occupancy of Hangar 107 upon its construction in 1985. Prior to their tenancy at Hangar 107, AIAC occupied space currently used by Atlantic Aviation. CDM was accompanied by Mr. Dan Calipa, Facilities Manager of AIAC, during the walk-through who described their operations and provided information on the leasehold. AIAC is a subsidiary of the American Insurance Group (AIG) and operates the corporate flight department for AIG. Operations at Hangar 107 include light aircraft maintenance, sanitary service, washing, deicing, chemical storage, and equipment degreasing and washing (see **Table 4-1** in Section 4).

Hangar 107 is located at the southeast portion of the Airport, east of Hangar 109 and west of Taxiway E and a stormwater impounding basin. The hangar apron, "air side", is located to the south and an undeveloped vegetated area is located to the north.

Hangar 107 is of steel beam and concrete block wall construction with a poured concrete foundation. The interior hangar space consists of 21,800 square feet of hangar area interconnected with a 11,500-square-foot, two-story office building. The hangar and office areas are heated by a natural gas-fired forced hot heating system. Water and sewage services are provided by municipal utilities.

The office portion of the hangar is used for administrative and management functions. The area contains offices, a lunch room, a pilot lounge, an exercise room, several storage rooms, and an electrical room with four dry-type transformers. This room is heated by a separate electric heating system.

The majority of the hangar space is occupied by several large aircraft. Other interior spaces of the hangar include a light maintenance shop for AIAC and sublets, office spaces, and a volatile materials storage room. The maintenance shop contains a work station with a drill press, cutting machine, and a shipping and receiving area, a utility sink, and a sanitary sewage service cart. The volatile material room is power ventilated via a stack in the ceiling which exits the roof. A sanitary sewer line port for discharging the sanitary sewage cart is also located in this room and the floor is pitched to a floor drain which is connected to the oil/water separator system.

At the time of CDM's inspection, the room contained the following materials:

- 55-gallon drums of aircraft soap
- Solvent degreaser unit
- Miscellaneous cleaners and degreasers, paint strippers
- Hydraulic fluids and oils
- Petroleum distillate degreaser
- 1- to 5-gallon cans of gasoline

A center trench drain bisects the hangar space and enters an oil/water separator located inside the hangar. The separated oil is stored in a 550-gallon UST located beneath the macadam to the west of the hangar. The water is discharged to the sanitary sewer line. According to Mr. Calipa, the UST is

cleaned and inspected annually at which time mostly water is removed. The fact that mostly water is removed, rather than mostly oil as would be expected, may be due to several factors, including improper maintenance, emulsion of the oils (thereby bypassing the intent of the separator) or that very small quantities of oils are washed from the aircraft or the hangar floor (the floor of the hangar was exceptionally clean at the time of the site reconnaissance).

A fire-suppression room, waste oil and fuel storage area, and equipment storage area are located at the northeast corner of the building. The waste oil storage consists of three 55-gallon drums which are stored under a tarpaulin on a secondary containment skid located on a concrete pad outside the building. The waste fuel is contained in a separate 55-gallon drum. According to Mr. Calipa, the waste oil and fuel are removed every six months. No staining or discharges were observed in the area. The fire-suppression room (also called the "foam dump" room) is inside the building and contains a high expansion foam dispensing system connected to the hangar aircraft storage space. Landscaping equipment is also stored in this room. A floor drain connected to the oil/water separator system is also located in the room. A small diameter copper tube enters the room from an interior wall. It is believed this line drains condensate from the air conditioners. A natural gas fired back-up generator is located on the north exterior side of the hangar behind a thick stand of shrubs. No staining was observed in these areas.

American Port Services, Inc. (APSI)

APSI began management of the Airport upon their acquisition of Johnson Controls operations and management division in 1986. APSI occupies Buildings 9, 27, 33, 70, and 72 and is based at 90 Moonachie Avenue in Building 72. CDM interviewed Mr. Charles W. Kurtz, Vice President of Facilities Engineering and Development of APSI, and Mr. Ron Petrella, Manager of Airport Maintenance, regarding APSI's operations and history. CDM was accompanied by Mr. Petrella during the walk-through. He also assisted in describing operations and provided general information regarding the Airport.

Building 9

Building 9 is located along the western boundary of the Airport and south of Building 33 and north of Hangar 5. A vehicle parking area is located to the east ("air side" portion of the Airport with restricted access), and Industrial Avenue is located to the west. Building 9 was erected in 1945 and is of steel beam concrete block and corrugated steel wall construction with a poured concrete foundation. Building 9 is the main maintenance location for APSI operations and consists of 3,200 square feet of office and garage space. The building is heated with an oil-fired heating system. The oil is stored in a 1,000-gallon UST located on the east exterior side of the building. Water and sanitary sewage services are provided by municipal sources.

Building 9 consists of an electrical/carpentry room, vehicle maintenance garage, storage area, and a small office space. The electrical/carpentry room located on the north end of Building 9 contains welding supplies, a compressor with the blowdown discharging to the exterior macadam, carpentry materials and equipment, electrical equipment, a pallet of fertilizer used in deicing the runway, and vehicle parking.

The vehicle maintenance garage located on the southern end of Building 9 contains vehicle parking, tool lock box, airport lighting, and copper piping supplies in a loft storage area. A floor drain is located in the center of the garage area and near the flammable storage cabinet. No staining was observed around the floor drains. Oily fluid was observed inside the center drain. According to APSI representatives, the floor drains discharge to the sanitary sewer line. Suspect ACM was observed in the pipe wrapping.

At the time of CDM's inspection, the building contained the following materials:

- Fifteen 5-gallon containers of traffic paint
- Engine oils, antifreeze, torque fluid
- One 55-gallon drum of degreaser
- Safety Kleen wash station

A 4,000-gallon automotive fuel UST was removed from the southeast exterior corner of the building.

Building 33

Building 33 is located along the western boundary of the Airport and south of Hangar 14 and North of Building 9. A vehicle parking area is located to the south, the hangar aprons are located to the east "air side" and Industrial Avenue is located to the west.

Building 33 was erected in 1955 and is of steel beam and corrugated steel wall construction with a asphalt floor. Building 33 is the parking shed for APSI maintenance and snow plowing vehicles. The building is not heated.

At the time of CDM's inspection, a covered storage area was located on the west side of the building which contained the following materials:

- One 275-gallon waste oil AST
- Miscellaneous solvents
- Ten, 55-gallon drums of antifreeze
- Weed killer

No staining was observed in the area. The 275-gallon waste oil AST was previously installed in 1985 as a UST (No. E-55) in that area and later removed and placed aboveground in 1986.

Building 27

Building 27 is located along the western boundary of the Airport and south of Hangar 3 and north of Hangar 5. A vehicle parking area is located to the west along Industrial Avenue and the "air side" is located to the east.

Building 27 was erected in 1955 and is of steel beam concrete block construction with a poured concrete foundation and exterior brick wall. Building 27 operates as the Airport's administrative office and first-response fire and rescue headquarters. The building is 3,100 square feet and heated with a gas-fired heating system. Water and sewage services are provided by municipal sources.

Building 27 consists of an office space, a two-bay fire truck garage, storage area, and a furnace room. The two-bay garage with the fire truck also contains storage for fire extinguishers, approximately 50 five-gallon sealed buckets of foam concentrate and other fire-response-related equipment and materials. Two cut copper lines are in the furnace room. According to Mr. Petrella, the furnace was converted to natural gas approximately three years ago. APSI records indicate the heating oil UST (No. E-36) was removed on June 3, 1991. A floor drain was also noted in the furnace room. No staining or off-odors were observed in the area. According to Mr. Petrella, the floor drain discharges to the storm sewer line and ACM removal was performed throughout the building.

The immediate exterior of Building 27 includes an asphalt parking lot to the west. The two-bay fire truck garages open to east (air side) to the runways. Fuel truck parking and the hangar apron for Hangar 15 is located to the south and the aircraft parking near Hangar 3 is located to the north. Two dumpsters are located adjacent to the building on the south side. The dumpsters are serviced by Classic Sanitation and RS Recyclers.

Building 40

Building 40 is located in the center of the Airport and was erected between 1947 and 1950. Building 40 is of steel beam concrete block construction with a poured concrete foundation and exterior brick wall. Building 40 is referred to as the "lighting vault" and houses the Airport's electrical regulators and a back-up generator for the landing lights. The building is not heated and contains a roof-mounted cooling fan for the generator. According to APSI representatives, the building floor drains discharge to the sanitary sewer line.

A 1,500-gallon diesel oil UST (No. E-52) is located to the north of the lighting vault. A fuel pump connected to the UST is located adjacent to the lighting vault. The diesel is used to fuel Airport maintenance vehicles and the back-up generator. Staining was observed at the fuel pump.

Building 70

Building 70 is located along the northeastern boundary of the Airport and was erected in the mid-1950s. The building is of steel beam concrete block construction with a poured concrete foundation and an exterior brick wall. Building 70 operates primarily as an administrative office building. The building is 42,000 square feet and is heated with a gas-fired heating system. Water and sanitary services are provided by municipal sources.

The building consists of office spaces, boiler room, switch gear room, storage areas, and a maintenance room. The boiler room contains a Cleaver Brooks boiler, hot water heater, and a non-operating heater. Suspect ACM insulation was observed in non-friable condition. The boiler blow-down pipe discharges to a floor drain and according to Mr. Petrella, the drain is connected to the storm drain. No staining or odors were observed from the drain.

At the time of CDM's inspection, the maintenance room contained the following materials:

- Four cabinets with a small quantity of sealed containers holding motor oils, lubricants, and paints.

The switch gear room contains four transformers, three of which were labeled as dry-type.

The boiler was previously oil-fired by a 5,000-gallon heating oil UST which was located outside the boiler room. The UST was removed in 1987.

The office spaces are sublet to six entities, including: the Federal Aviation Administration, Signature Flight Support Group, Jet Cleaners, and three flight schools, including Aircraft Charter Group Inc., Sparta, and Air Fleet.

The immediate exterior of Building 70 includes an asphalt parking lot to the north. Hangar 17 and aircraft parking is located to the west (air side). Hangar 16 is located to the south and Riser Road is located to the east. Three, concrete pad-mounted, transformers surrounded with stone are located in a fenced area at the south exterior end of the building. The transformers are owned by PSE&G and are not labeled with PCB labels. A 5-cubic-yard dumpster is located further south between Building 70 and Hangar 17. No staining was observed in any of these areas.

Building 72

Building 72 is located along the northeastern boundary of the Airport at 90 Moonachie Avenue. Building 72 was erected in the 1955 and is of steel beam concrete block construction with a poured concrete foundation and an exterior brick wall. The building operates as office space, warehouse, and an aeronautical school. The building is 93,300 square feet and heated via a gas-fired heating system. Water and sewage services are provided by municipal sources.

Office spaces are occupied by APSI and are sublet by the Teterboro School of Aeronautics (TSA), Creative Force (a graphics design firm), New World Jet, Jet Aviation, and several unoccupied office spaces. The warehouse spaces consist of ultra violet (UV) light drying booth connected to a compressor. Five flammable labeled cabinets and a shopping cart with approximately 30 empty paint cans are located adjacent to the booth. The cabinets contain several 5-gallon drums of cleaners, UV sanding sealers and MEK, small quantity containers of polyester promoters and strippers, and a spray cans of thinners. A adjacent Falcon Jet warehouse space contains six metal working machines and small work area.

The interior spaces sublet by TSA include an aircraft motor maintenance area with a Magna-flux testing basin, a 55-gallon drum of dumonene/difentine, and a large compressor with the blowdown to the concrete floor. Two vent line pipes were observed in this area. The source of the pipes could not be determined. A welding demonstration room contains with work spaces, an abrasive steel shot cleaning booth and a floor drain. A paint storage room includes several shelves of aircraft finish, enamels, and paints. A small room off this room contains electrical welding equipment, a desk and metal scrap storage in 55-gallon drums. No staining was observed in any of the areas.

The boiler room contains a gas-fired furnace, water heater, and transformer. The transformer is not labeled as a PCB transformer. A floor drain is also located in the room. No staining or odors were observed in the area.

An asphalt parking lot surrounds the immediate exterior of the building. Moonachie Avenue is located to the south and vegetated and wetland areas are located to the north, east, and west. The areas to the north and east were flooded at the time of the inspection. Garbage dumping was observed in this area. Aircraft are located in a locked fenced area in the northwestern corner of the

asphalted area. A trailer and aircraft part storage containers are also located in the area. Remnants of a pump island are located at the western edge of the parking lot. Four 4,000-gallon USTs were removed from the grass area west of the parking lot in 1987.

At the time of CDM's inspection, a covered storage area was located on the west side of the building and the area contained the following materials:

- Four 275-gallon ASTs
- Four 55-gallon drums

One of the ASTs contained a line connected to a aircraft propeller engine used for demonstration at the TSA school.

Three fenced concrete-mounted transformers are located adjacent to the building along the west exterior side. They were labeled as PCB transformers. No staining or evidence of discharges were noted in the area. A fenced loading area is located along the south exterior wall of the building. Drum storage of flammable materials were observed.

Patching of asphalt was observed outside the garage door at the northwest corner of the building. The patching appears to indicate that a line leading from the building to a rectangular section, possibly an oil/water separator, leads to the storm drain.

Atlantic Aviation

Atlantic Aviation occupies Hangars 2, 3, 4 and 12 located at 112 Industrial Avenue. Atlantic Aviation has operated as a FBO at the Airport since 1946. CDM interviewed Mr. Cal Hoogestraat, Base Manager and Mr. H. J. Espisito, Ground Services Manager, regarding Atlantic Aviation's operations and history. CDM was accompanied by the facility maintenance manager during the walk-through, who described operations and provided information regarding their leasehold.

Atlantic Aviation operations include aircraft chartering, aircraft and vehicle fueling, light aircraft and vehicle maintenance, aircraft sanitary service, aircraft washing and deicing, chemical storage, and equipment degreasing and washing. Atlantic Aviation occupies four hangars, including Hangar 2, Hangar 3, Hangar 4 and Hangar 12. Atlantic Aviation sublets floor space in each of these hangars. Tenants are responsible for all waste management and storage and handling of chemicals.

Hangar 2

Hangar 2 is located along the northwestern border of the Airport, north of Hangar 4 and south of Hangar 12. The hangar apron (air side) is located to the east and Industrial Avenue is located to the west.

Hangar 2 was erected in the mid 1940s and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior space of the hangar consists of 13,200 square feet of hangar area, small office spaces, a boiler room, and a maintenance shop. The hangar and office areas are heated with a gas-fired forced hot air heating system. Water and sewage services are provided by municipal utilities. Sublets within Hangar 2 include Schiavone Construction, US Department of Agriculture, US Customs, and Advanced Flight Co.

The boiler room is located on the northwest corner of the hangar and is accessed via an exterior door. The boiler room contains a Pacific Boiler which, at one time, operated on No. 2 fuel oil but has been converted to natural gas. The old fuel oil copper lines still remain. The lines lead from the boiler to the location of the former 4,000-gallon UST, which was located outside the north wall of the hangar. The UST was removed in 1988.

At the time of CDM's inspection, a padlocked secondary containment unit stored outside the boiler room contained the following materials:

- Six 55 gallon drums containing waste oil and waste fuel
- Two 55-gallon drums with a drain pan for waste oil

A Texaco aircraft fueling truck was parked outside the boiler room during CDM's inspection. The maintenance manager stated that the truck was rarely parked in this location.

The maintenance shop is located adjacent to the boiler room within Hangar 2. The shop is a small area used to perform light repairs on the aircraft and equipment. At the time of CDM's inspection, the maintenance shop contained the following materials:

- Drilling and cutting machinery
- Motor oil, kerosene, lubricants and cleaners stored in six 55-gallon drums

Part storage is located in a smaller, second floor wooden loft.

A former fueling area is located on the southeast exterior corner of Hangar 2. Two, 1,000-gallon gasoline USTs equipped with dispenser pumps were located in this area. These tanks were removed in 1988. The tarmac patch covering the excavation of the USTs and dispenser were noted. A 300-gallon AST is located on the macadam between Hangars 2 and 12. At one time, AST contained waste oil but it is no longer in service. No staining was observed in the vicinity of the AST. The AST was formerly located between Hangars 3 and 4.

Hangar 3

Hangar 3 is located along the northwestern border of the Airport, northwest of Building No. 27, and south of Hangar 4. The hangar apron (air side) is located to the east and Industrial Avenue is located to the west.

Hangar 3 was erected in the late 1940s and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior consists of 48,000 square feet of hangar space and a smaller section for offices, storage rooms, light maintenance rooms, and a boiler room. The hangar and office areas are heated by a gas-fired forced hot air heating system. Water and sanitary services are provided by municipal utilities.

A center trench drain bisects the hangar along the long axis of the structure and enters an oil/water separator located inside the hangar. The separated oil is stored in a 550-gallon UST located beneath a paved area outside the hangar. Water from the oil/water separator is reportedly discharged to the sanitary sewer.

Sublets within Hangar 3 include Custom Aircraft Interiors (CAI), Loral Travel Services, Chamarac, N.T. Air Co., H.I.S. Aviation, Loral, I.A.M., and Colgate Palmolive. The subtenant with the largest area in Hangar 3 is CAI, which fabricates and remodels aircraft interiors. CAI occupies several office spaces as well as hangar space. Office spaces are used for administrative purposes. The leasehold includes a design/work room, a fiberglass molding room, material storage space, and chemical storage room. The fiberglass molding room is vented via a powered fan through a dust hopper located in the hangar and exhaust through the roof of the building. CAI states they rarely use the fan.

At the time of CDM's inspection, the chemical storage room contained the following materials:

- One 55-gallon drum of Hetron
- A 55-gallon drum labeled as hazardous waste (from waste thinners and resins)
- A cabinet containing 1-gallon cans of paints
- One-gallon containers of contact cement
- Cabinet which contains small quantity containers of oils, lubricants, and cleaners

The remaining tenants in Hangar 3 occupy offices or maintenance rooms. One 55-gallon drum and three, 35-gallon drums of waste oil and waste jet fuel were observed in the hangar. It was not clear to which tenant these materials belonged.

The boiler room for Hangar 3 is located at the northwest corner of the hangar and is accessed via an exterior door. The boiler room contains two boilers and a hot water heater both fueled by natural gas. The boilers were originally oil-fired units and are covered with suspect ACM insulation. The oil was stored in a 4,000-gallon UST, which is reportedly removed in March of 1988. Oil staining was observed in several areas throughout the boiler room floor. A vent line and a large fill port, which resemble UST features, were observed immediately north of the boiler room.

A 3,200-gallon, Type II propylene glycol AST with secondary containment is located inside a fenced area between Hangars 3 and 4. The AST was installed in 1996. Approximately twelve, empty 55-gallon drums of propylene glycol are also stored inside the fenced area and dark staining was observed on the unpaved areas within the fence. Four 55-gallon drums of propylene glycol (on a secondary containment pad) and a spill response kit containing absorbent booms and pads are also located in this area. According to an Environmental Priorities Initiative Visual Site Inspection Report prepared by Atlantic Aviation in July 1992, three USTs existed where the propylene glycol tank is located. These USTs included two heating oil USTs (7,500 gallons and 1,000 gallons) and a 515-gallon kerosene UST. Further discussion of these USTs is discussed in Section 4.

A small brick building, Building 49, is also located adjacent to the north of Hangar 3. The Atlantic Aviation maintenance manager was not able to access the interior of the building. He stated that the building is used for electrical purposes.

Hangar 4

Hangar 4 is located along the northwestern border of the of the Airport, north of Hangar 3, and south of Hangar 2. The hangar apron is located to the east and Industrial Avenue to the west.

Hangar 4 was erected in 1981 and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior consists of 32,500 square feet of hangar space and smaller areas for office space, storage rooms, light maintenance rooms, and boiler room. A smaller building is attached to the south side of Hangar 4 and is used as the passenger service and main administrative area. The hangar and office areas are heated with a gas-fired forced hot air heating system. Water and sanitary services are provided by municipal utilities.

Sublets within Hangar 4 include 711 Air Corp., Culbro, P&E Properties, Shamrock Aviation, Colgate Palmolive, Air Kelso, and Beta. Most of these sublets use the hangar for light maintenance and offices.

In addition to aircraft storage in the hangar, a sanitary sewage service cart, tools, and equipment and cleaners are stored in cabinets located in Hangar 4. A sanitary sewer line port for sanitary sewage cart discharge connection is also located in the hangar space. Two trench drains are located in the hangar space and enter two oil/water separators. The separated oil flows into the two 550-gallon USTs located beneath the macadam. The water from the oil/water separators is discharged to the sanitary sewer line.

The remaining interior spaces include office spaces used for administrative purposes, tenant work and equipment/tool storage rooms, a compressor room, a boiler room, an electrical room, a fire-suppression equipment room, and a volatile materials storage room. The compressor room contains a compressor with the blowdown pipe discharging to the floor drain, a water softening system for the roof-mounted air conditioning system, linens, and janitorial supplies. The electrical room contains seven floor-mounted transformers; four are labeled dry-type, the other three are not labeled as to their potential PCB content. The fire-suppression equipment room contains a 750-gallon foam AST and three 55-gallon drums of foam concentrate (1% alcohol). The boiler room contains one gas-fired boiler, one floor-mounted transformer, and a floor drain.

At the time of CDM's inspection, the volatile storage room contained the following materials:

- Seven steel storage cabinets (three of the seven are labeled Flammable) containing small quantities of paints, solvents, lubricants, and oils
- Two 55-gallon drums of de-icing fluid
- Three 55-gallon drums of cleaning concentrates
- Several portable parts cleaners and degreasers
- A storage room containing two 15-gallon containers of waste gasoline, cleaner concentrates, janitorial supplies and aircraft tires

An empty room with a wall-mounted heater, wash down hose and a large steel plate in the center of the floor was observed by CDM during the inspection. Atlantic Aviation could not explain what the room was used for or what was below the steel plate; however, its location appears to be consistent with the location of the oil/water separator discharge line.

Other tenant office and maintenance rooms contained small containers of oils, lubricants, and cleaners. None of these tenants were available at the time of the site reconnaissance.

In addition to the aircraft, aircraft sanitary sewage service carts and pressurized nitrogen and oxygen cylinders (for aircraft tires) are stored in Hangar 4.

Hangar 12

Hangar 12 is located along the northwestern border of the Airport, north of Hangar 2 and south of Hangar 1. The hangar apron is located to the east and Industrial Avenue to the west of the building.

Hangar 12 was erected in the late 1950s by Texaco. Hangar 12 is of steel beam and concrete block wall construction with a poured concrete foundation. The interior consists of 19,440 square feet of hangar area, a boiler room, and a flammable storage area. A small one-story office building is attached to the south side of the hangar. The hangar and office areas are heated with a gas-fired forced hot air heating system. Water and sanitary services are provided by municipal utilities. A center trench drain in the hangar floor discharges to the storm sewer line. According to aerial photographs, two hangars previously existed in the area of Hangar 12.

Sony Corporation has occupied the entire hangar since 1990. Previous tenants of Hangar 12 include Texaco, Atlantic Aviation and Texaco. As with the other hangars leased by Atlantic Aviation, Sony is responsible for all waste management and storage and handling of chemicals. The perimeter of the hangar interior is used for storage of aircraft parts and maintenance equipment and tools. Only two planes were in the hangar at the time of CDM's site walk-through. The interior of the hangar was immaculate.

The boiler room is located in the southwest corner of the hangar and is accessed from an exterior door. The boiler has been converted to a natural gas fuel burning system. The former 3,000-gallon fuel oil storage tank was removed in 1989, the same time that the boiler retrofit was completed. The former UST was located along the driveway along the western side of the building. The location of the gas line leading to the boiler room is evidenced by macadam patching. Boiler and compressor blowdown pipes discharge to a floor drain reportedly connected to the storm sewer line. A feature resembling a fill or clean-out port was observed in the boiler room floor. Lawn maintenance equipment is also stored in the room.

Exxon Service Station #32007

The Exxon Service Station is located on at the northwestern corner of the Airport at the southeast corner of the Route 46 East and Industrial Avenue intersection. CDM was accompanied by Mr. Bob Maloney, Operator of the Exxon Service Station, during the walk-through. Mr. Maloney described operations and provided information regarding the history of the leasehold. Mr. Maloney has operated the Exxon Service Station at Teterboro Airport since August of 1983. Records indicate the Exxon Service Station area has operated as a retail service station since at least 1947. Operations at the Exxon Service Station facility include sale and storage of gasoline and minor automotive repair.

Building 34

Building 34 is a one-story office and garage building located in the center of the service station. The building is of concrete block construction with a poured concrete foundation and a brick exterior. The building is heated by an oil-fired forced hot air heating system. Water and sewage services are provided by municipal utilities. A three-bay garage is located on the eastern portion of the building. The garage contains two, single pole, below-grade hydraulic lifts and one above ground lift. An underground oil/water separator located in the bay was filled with concrete in 1990.

At the time of CDM's inspection, the garage or adjacent storage rooms contained the following materials:

- A 245-gallon waste oil AST
- Two poly 55-gallon drums containing new and waste antifreeze liquid
- Cases of engine oils, transmission fluids and other automotive related petroleum based substances
- A parts cleaner and spray canisters of degreasers

Also contained in the garage are work tables, an air compressor, new and old batteries, a tire changing machine, new tires, spare and new parts and tool storage cabinets. The oil-fired furnace is located in the storage room. No staining was observed in the storage area; however, dark, oily stains were observed throughout the concrete floor of the garage bay.

Storage areas are located in the rear (southern) portion of the building. One of the storage rooms contains a tool and parts cleaning basin and an oil rag storage container. Staining was observed on the floor of this area. The second storage room contains a compressor, new and old batteries, boxed new oil filters, light bulbs, and the oil-fired furnace.

Three, 6,000-gallon gasoline USTs are located beneath a concrete apron to the north of the building, the two fueling islands, each with three fuel dispensers, are located to the northeast. There is no overhead canopy above the dispensing island because it may interfere with the glide path to the Airport. One 1,000-gallon heating oil UST is located beneath a grass covered area to the west of the building.

The majority of the leasehold area is paved; a small portion to the south is covered with grass and/or exposed soil. Approximately 20 cars belonging to customers are parked on the macadam along the east of the building. No staining was observed on the grounds next to the building.

Seven groundwater monitoring wells are located along the perimeter of the leasehold property. According to Mr. Maloney, these wells were installed as part of an ongoing soil and groundwater contamination investigation which was discovered when the three USTs were upgraded in the late 1980s. Currently, a computerized leak detection and inventory reconciliation system monitors the condition of the three USTs. Mr. Maloney states that there has not been any recorded loss of inventory since system start-up.

First Aviation

First Aviation occupies Hangar 1 at 111 Industrial Avenue and Hangar 121A at 121 Billy Diehl Road which is sublet through Executive Jet Aviation. First Aviation has operated as a FBO at the Airport since 1985. During the walk-through, CDM was accompanied by Mr. Robert DeStefano, Ground Services Manager of First Aviation, who described operations and provided information regarding their tenancy at the Airport. Previous primary tenants of Hangar 1 include Beechcraft/Suburban Aviation and Safair General Aviation.

Operations at First Aviation hangars and apron areas include:

- Aircraft chartering
- Aircraft and vehicle fueling
- Light aircraft and vehicle maintenance
- Aircraft sanitary service
- Aircraft washing
- Deicing, chemical storage, and equipment degreasing and washing

The majority of all hangar space is occupied by aircraft.

Hangar 1

Hangar 1 is located along the northwestern border of the Airport, north of Hangar 12, and south of Building 34 (the Exxon service station). Industrial Avenue is located west of the hangar.

Hangar 1 was erected in 1947 (with renovations performed in 1987), and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior consists of 23,000 square feet of hangar area and a smaller portion used for office space, a boiler room, and a maintenance shop. The hangar and office areas are heated with a gas-fired forced hot air heating system. Water and sanitary services are provided by municipal utilities. Sublets within Hangar 1 include Executive Jet Aviation, Air Group, Horse Head Aviation, Hick Muse & Co., Hoffman LaRoche and Canadian Challenger, Inc. First Aviation is responsible for management of any hazardous wastes or materials generated in Hangar 1. According to Mr. DeStefano, most chemicals used by the sublets are purchased through First Aviation.

The boiler room contains two gas-fired hot water boilers and a dry-type transformer.

At the time of CDM's inspection, the maintenance shop, the adjacent storage room or the compressor/electrical room contained the following materials:

- Two steel cabinets marked Flammable, each containing small containers of paints, thinners, and lubricants
- Three 55-gallon drums containing motor oil, mineral spirits and a multi-purpose alkaline detergent
- Two 5-gallon drums of thinners and methanol

- A Safety-Kleen parts washer
- One 5-gallon container of methanol
- Two 55-gallon drums of floor cleaner
- Several nitrogen and oxygen pressurized canisters

Other items in the maintenance shop include aircraft parts, tools, drill press, and a UST leak detection monitoring system. An adjacent storage room contains a flush-mounted fill port for a 550-gallon waste oil UST located outside the west wall of the building.

The compressor/electrical room contains meters, switch panels, a compressor, and a dry-type electrical transformer. A floor drain was also observed in the room. First Aviation could not document the discharge point for this floor drain but believed it was connected to the sanitary sewer.

In addition to the aircraft stored in the hangar, sanitary sewage service carts, tools, equipment and cleaners storage cabinets are located in the hangar. A sanitary sewer line port for the sanitary sewage service cart discharge connection and four square floor drains are located in the hangar. Water from the floor drains enters an oil/water separator located inside the hangar. The separated oil is stored in a 550-gallon UST located beneath the macadam. According to APSI representatives, the segregated water is then discharged to the sanitary sewer. Storage areas are located on the macadam to the north of Hangar 1. Three trailers containing a forklift, tractor, coolants and oils, parts, and a work table are located along the northwestern border of the area along Industrial Avenue. At the time of CDM's inspection, these trailers contained the following materials:

- Ten 55-gallon drums of waste oil
- One 55-gallon drum of aircraft wax

Three 500-gallon poly ASTs, equipped with secondary containment mechanisms, which contain "AcroPlus" (a Type I dilute propylene glycol) are located adjacent to the trailers.

Jet Aviation

Jet Aviation occupies the most leaseholds at the Airport. Jet Aviation leases Hangars 109, 111, 113, 114, 118, 119, and 120 and Building 112, located at 111 Charles A. Lindbergh Drive. Jet Aviation has operated as a FBO at the Airport since 1988. CDM interviewed Mr. Stephen N. Mosca, Director of Facilities and Services for Jet Aviation, regarding their operations and use history. CDM was accompanied by Mr. Mosca and then the Facility Maintenance Manager, "Carmine" during the walk-through. Both men assisted in describing operations and provided information regarding Jet Aviations' activities at the Airport. Previous tenants to Jet Aviation hangars are listed in **Table 3-2.**

Table 3-2 Previous Tenants to Jet Aviation Hangars	
Facility	**Prior Tenant**
Hangar 109	None
Hangar 111	Aero Services
Hangars 113 & 114	Constructed and first occupied by Falcon Jet
Hangar 118	PHH, Executive Air Fleet
Hangar 119	Executive Air Fleet, Falcon Jet
Hangar 120	PNA, Singer Corporation
Building 112	Lounge for Falcon Jet

Operations at the Jet Aviation hangars and apron areas include:

- Aircraft chartering
- Aircraft and vehicle fueling
- Light aircraft and vehicle maintenance
- Aircraft sanitary service
- Aircraft washing and deicing
- Chemical storage
- Equipment degreasing and washing.

The majority of hangar space is occupied by aircraft storage.

Hangar 109

Hangar 109 is located in the southeastern portion of the Airport, northeast of Hangar 111, and west of Hangar 107. The hangar apron is located to the south and Charles A. Lindbergh Drive to the north.

Hangar 109, the newest hangar on the Airport, was erected in 1997 and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior consists of 40,000 square feet of hangar space area and 8,820 square feet used for office space, a boiler room, and a maintenance shop. The hangar and office areas are heated with a gas-fired forced hot air heating system. Water and sanitary services are provided by municipal utilities. Sublets within Hangar 109 include East West Air and ROP.

In addition to the aircraft storage in the hangar, nitrogen and oxygen pressurized canisters, two 55-gallon drums of propylene glycol (on a secondary containment platform), tools, equipment and cleaner storage cabinets, a sanitary sewage service cart and a sanitary sewer line port for lavatory cart discharge connection are located in the hangar. A center, trench, floor drain is located in the hangar. Water from the floor drain enters an underground oil/water separator system in the

hangar. The separated oil flows into a 550-gallon UST located outside the hangar. The waste oil storage tank is located beneath the exterior macadam adjacent to the hangar. According to APSI representatives, the water from the separator is then discharged to the sanitary sewer.

Hangar 111

Hangar 111 is located in the southeastern portion of the Airport, north of Building 112, and southwest of Hangar 109. The hangar apron is located to the east and Charles A. Lindbergh Drive to the west.

Hangar 111 was erected in 1980 and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior consists of 40,000 square feet of hangar space and 14,720 square feet used for office space, a boiler room, and for tenant maintenance/equipment shops. The hangar and office areas are heated with a gas-fired forced hot air heating system. Water and sanitary sewage services are provided by municipal sources. Sublets within Hangar 111 include Hertz Corp., Intercon Aviation, Falcon Jet, SAH Enterprises, and the Galloway Group.

Items in the hangar include aircraft storage, nitrogen and oxygen pressurized canisters, 55-gallon drums of propylene glycol, tools, equipment and cleaner storage cabinets, a sanitary sewage service cart, and a sanitary sewer line port for sanitary sewage service cart discharge connection are located in the hangar space. A center, trench, floor drain located in the hangar enters an underground oil/water separator system in the hangar. The separated oil flows into a 550-gallon UST located outside the hangar. The waste oil storage tank is located beneath the exterior macadam adjacent to the hangar. According to APSI representatives, the water is discharged to the sanitary sewer line.

Individual tenant spaces includes small offices and tenant maintenance/work shops consisting of tool and equipment storage and work tables. The Jet Aviation maintenance shop includes storage cabinets and shelving of small quantity containers of oils, lubricants, paints, and other related fluids, tools, and work tables. A two-inch diameter, brass cap, resembling a UST fill port and labeled "fuel oil," was observed in the vinyl tiles of the narrow hallway outside the Jet Aviation maintenance room. Jet Aviation representatives did not know if a UST was located under the floor. The fill port could not be opened at the time of CDM's inspection.

A concrete apron located to the west of the hangar is used as a waste oil storage area. The area is comprised of four secondary containment units which can house 55-gallon drums. No staining or evidence of discharges were observed in the vicinity of these secondary containment devices.

A 2,000- and 1,500-gallon, poly-type AST, containing propylene glycol deicing fluid, are located on the north side of the hangar. A hazardous material spill response cabinet and two fuel trucks are also located in this area. No staining or evidence of discharges were observed in the area.

Building 112

Building 112 is located in the southeastern portion of the Airport, north of Hangar 113, and south of Hangar 111. The hangar aprons are located to the east of the building and Charles A. Lindbergh Drive is located to the west.

Building 112 was erected in 1980 and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior consists of 2,025 square feet of office space which is heated with a gas-fired forced hot air heating system. Water and sanitary services are provided by municipal utilities. The building is used by Jet Aviation for administrative purposes only and there are no sublets within Hangar 112.

Hangar 113

Hangar 113 is located in the southeastern portion of the Airport, north of Building 114, and south of Building 112. The hangar apron is located to the east of the building and Charles A. Lindbergh Drive is located to the west.

Hangar 113 was erected between 1976 and 1985 and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior consists of 20,400 square feet of hangar space and 23,348 square feet used for office space, a compressor room, a paint room, and a maintenance/equipment shop. The hangar and office areas are heated with a gas-fired forced hot air heating system. Water and sanitary services are provided by municipal utilities. There are no sublets within Hangar 113.

The compressor room contains two compressors, a hot water heater, and a dryer. The paint room contains an air filtering system and a floor drain. The room is used to paint aircraft parts; however, the room is reportedly used infrequently since Falcon Jet ceased heavy maintenance at the hangar in the late 1980s. The Jet Aviation equipment/maintenance shop contains sheet metal working equipment and small containers of lubricants, oils, and paints. A floor drain is located in the room.

The hangar houses aircraft, tools, equipments and cleaner storage cabinets, two wall-mounted elevated transformers, a spill response kit, a sanitary sewage service cart and a sanitary sewer line port for the sanitary sewage service cart discharge connection. No dry-type label was observed on the transformer. A center trench floor drain reportedly discharges to an oil/water separator located outside the hangar. The separated oil flows into a 550-gallon UST located beneath the exterior macadam adjacent to the hangar. According to APSI representatives, the water from the separator is then discharged to the sanitary sewer.

At the time of CDM's inspection, two cabinets labeled flammable stored outside the hangar within a fenced area on the west side contained the following materials:

- One-gallon containers of mineral spirits, MEK, and gasoline
- One 55-gallon drum of aircraft wax

The area was previously used for drum storage. Circular depressions from 55-gallon drums and dark stains on the macadam were observed in this former drum storage area.

An adjacent fire control room is accessed via an exterior door from an adjacent second fenced area. This paved area contains two vent lines, a small clean-out port, and a large manhole cover. These vent lines and ports are reportedly part of the oil/water separator system. Further south along the exterior wall of the hangar, CDM observed a third vent line. Jet Aviation representatives did not

know the source of the vent line and CDM could not locate a fill port in the vicinity of this vent line (see photograph 20 in **Appendix C**).

Hangar 114

Hangar 114 is located in the southeastern portion of the Airport, northwest of Hangar 118, and southwest of Hangar 113. The hangar apron is located to the east of the hangar, Charles A. Lindbergh Drive is located to the west, and Moonachie Avenue is located to the south.

Hangar 114 was erected in 1973 and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior consists of 14,896 square feet of hangar space and 5,600 square feet of space used for offices and maintenance/equipment shops. The hangar and office areas are heated with a gas-fired forced hot air heating system. Water and sanitary services are provided by municipal utilities.

At the time of CDM's inspection, the hangar contained the following materials:

- Nitrogen and oxygen pressurized canisters
- Three 55-gallon drums of waste hydraulic oil, waste motor oil, and waste sump fuel stored on a secondary containment platform
- Cleaners storage cabinets
- A parts washing station

The aircraft are located in the center of the hangar. Along the walls of the hangar are work stations where tools and equipment are located. A sanitary sewage service cart and line port for the its waste discharge line were near the west wall. Two trench drains are located in the hangar which are reportedly connected to two oil/water separators. The separated oil flows into the two 550-gallon USTs located under the macadam outside of the hangar. According to APSI representatives, the segregated water is discharged to the sanitary sewer line.

Hangar 118

Hangar 118 is located in the southeastern portion of the Airport, southeast of Hangar 114, and west of Hangar 119. The hangar apron is located to the north of the hangar and Billy Diehl Road is located to the south.

Hangar 118 was erected in 1970 and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior consists of 19,000 square feet of hangar space and 3,360 square feet of space used for offices a boiler room, and tenant maintenance/equipment shops. The hangar and office areas are heated with a gas-fired forced hot air heating system. Water and sanitary services are provided by municipal utilities. Sublets within Hangar 111 include Hertz Corp., Intercon Aviation, Falcon Jet, SAH Enterprises, and the Galloway Group.

At the time of CDM's inspection, the hangar contained the following materials:

- Nitrogen and oxygen pressurized canisters,

- A 55-gallon drum of cleaning concentrate
- Miscellaneous cleaning supplies
- A parts washing station

The hangar houses aircraft, tools, equipment, a sanitary sewage service cart, and a sanitary sewer port for disposing of sanitary sewage in the cart. A center trench floor drain is located in the hangar. The drain reportedly discharges to an oil/water separator system located on the "airside" of the hangar. The separated oil flows into a 550-gallon UST located beneath the hangar apron. According to APSI representatives, the water is discharged to the storm sewer line.

A concrete-mounted transformer is located outside the hangar. There were no labels identifying the potential PCB content of the transformer. No staining was observed on the transformer or the concrete pad beneath it.

Hangar 119

Hangar 119 is located in the southeastern portion of the Airport, east of Hangar 118, and west of Hangar 120. The hangar apron is located to the north of the hangar and Billy Diehl Road is located to the south.

Hangar 119 was erected in 1970 and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior consists of 19,000 square feet of hangar space and 3,360 square feet space used for offices, a boiler room, and tenant maintenance/equipment shops. The hangar and office areas are heated with a gas-fired forced hot air heating system. Water and sanitary services are provided by municipal utilities. Hangar 119 is sublet entirely to Falcon Jet Aviation.

At the time of CDM's inspection, the hangar contained the following materials:

- Nitrogen and oxygen pressurized canisters,
- A 55-gallon drum of cleaning concentrate
- Miscellaneous cleaning supplies
- A parts washing station

The hangar houses aircraft, tools, equipment, supplies, a sanitary sewage service cart and a sanitary sewer port for disposing of sanitary sewage in the cart. A center trench floor drain is located in the hangar. The drain reportedly discharges to an oil/water separator system located on the 'air' side of the hangar. The separated oil flows into a 550-gallon UST also located beneath the hangar apron. According to APSI representatives, the segregated water is then discharged to the storm sewer line. No staining or off-odors were observed near the drain.

The compressor and boiler room is accessed from an exterior door. Boiler and compressor blowdown pipes discharge to the drain. Water and rust stains were observed near the drain. A gas fueled generator is located in a fenced area on the "land side" of the hangar adjacent to the boiler. No staining was observed in the area.

Hangar 120

Hangar 120 is located in the southeastern portion of the Airport. Hangar 120 is located east of Hangar 118 and west of Hangar 121. The hangar apron "air side" is located to the north of the hangar and Billy Diehl Road is located to the south.

Hangar 120 was erected in 1970 and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior space consists of 19,000 square feet of hangar space and 3,360 square feet for offices, a boiler room and tenant maintenance/equipment shops. The hangar and office areas are heated with a gas-fired forced hot air heating system. Water and sewage are serviced by municipal sources.

At the time of CDM's inspection, the hangar contained the following materials:

- Nitrogen and oxygen pressurized canisters,
- A 55-gallon drum of cleaning concentrate
- Miscellaneous cleaning supplies
- A parts washing station

The hangar houses aircraft, tools, equipment, supplies, a sanitary sewage service cart and a sanitary sewer port for disposing of sanitary sewage in the cart. A center trench floor drain is located in the hangar. The drain reportedly discharges to an oil/water separator system located on the "air" side of the hangar. The separated oil flows into a 550-gallon UST also located under the hangar apron. The water is discharged to the storm sewer line. No staining or off-odors were observed near the drain.

Million Air

Million Air occupies Hangars 5 and 14 at 485 Industrial Avenue. Million Air has operated as a FBO at the Airport since 1975. CDM was accompanied by Mr. Stephen C. Chandoha, General Manager of Million Air, during the walk-through. Mr. Chandoha described operations and provided information regarding Million Air's operation at the Airport.

Operations at Million Air hangars and apron areas include:

- Aircraft chartering
- Aircraft and vehicle fueling
- Light aircraft and vehicle maintenance
- Aircraft sanitary service
- Aircraft washing and deicing
- Chemical storage
- Equipment degreasing and washing.

The majority of all hangar space is occupied by aircraft storage.

Hangar 5

Hangar 5 is located along the northwestern perimeter of the Airport along Industrial Avenue. It is the southern most hangar on Industrial Avenue.

Hangar 5 was erected in 1985 and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior consists of 13,728 square feet of combined hangar and office space. The hangar and office areas are heated with a gas-fired forced hot air heating system. Water and sewage services are provided by municipal sources.

At the time of CDM's inspection, the hangar contained the following materials:

- Several 55-gallon drums of propylene glycol and cleaner concentrates
- Three flammable labeled cabinets with small containers of cleaners and solvents

The hangar houses aircraft, a sanitary sewage service cart, and a tool storage area. A center trench drain is located in the hangar which reportedly discharges to an oil/water separator located inside the hangar. The separated oil discharges to a waste oil UST located beneath the exterior macadam adjacent to the hangar. According to APSI representatives, the segregated water is then discharged to the sanitary sewer line.

Interior spaces include a passenger service area, pilot lounge, administrative offices, and a storage room which contains small parts and tools stocked on shelve. A floor drain was observed in this room. According to Mr. Chandoha, the drain is connected to the sanitary sewer line. No staining or off-odors were observed in the area.

An asphalt-covered aircraft tie-down area is located south of Hangar 5. A small wooden shed containing landscaping equipment is located on a gravel patch south of the aircraft tie-down area.

At the time of CDM's inspection, the shed contained the following materials:

- Three 55-gallon drums of propylene glycol deicing fluid
- Approximately 30 empty 55-gallon drums of propylene glycol
- Two 5-gallon oil containers

Approximately 20 old aircraft tires and a collection of lead-acid batteries are located adjacent to the shed.

Three 275-gallon ASTs and four 55-gallon drums are located adjacent to the north exterior wall. According to Mr. Chandoha, one of the ASTs contains waste fuel and the drums are empty. No staining or discolored soils were observed in the area adjacent to the ASTs or the drums.

Hangar 14

Hangar 14 is located along the northwestern perimeter of the Airport along Industrial Avenue. Hangar 14 was erected in 1959 and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior space consists of 13,930 square feet of combined hangar and office space which is heated with a gas-fired forced hot air heating system. Water and sewage services are provided by municipal sources.

At the time of CDM's inspection, the hangar contained the following materials:

- Five 55-gallon drums of propylene glycol deicing fluid

- Three 55-gallon drums of cleaner concentrates
- Two cabinets labeled flammable which contain small containers of cleaners and solvents

The hangar houses aircraft, as well as a sanitary sewage service cart and a tool storage area. A center trench drain located in the hangar reportedly discharges to an oil/water separator inside the hangar. The waste oil storage tank is located beneath the exterior macadam adjacent to the hangar. According to Million Air representatives, the water from the oil/water separator is discharged to the sanitary sewer line. Based on the age of the hangar, the hangar may have previously been serviced by a septic system.

Interior space of the hangar includes two separate office spaces. The southern office area contains a second-story storage loft with furniture, files, and other office equipment. The northern office space contains two floors of offices and a kitchen. A 1,500-gallon polystyrene AST containing propylene glycol is located along the northern exterior wall of Hangar 14.

Port Authority of New York and New Jersey

The Port Authority occupies Hangar 121B at 121B on Billy Diehl Road and has operated as a FBO at the Airport since May 1972. CDM was accompanied by Mr. Ralph Matysik, Director of Maintenance, during the walk-through, who described their operations and provided information regarding the Airport.

Operations at the Port Authority hangar and apron areas include:

- Helicopter and vehicle fueling
- Helicopter and vehicle maintenance
- Helicopter washing
- Chemical storage
- Equipment degreasing and washing

Hangar 121B

Hangar 121B is located along the southeastern border of the Airport, east of Hangar 120, and north of Billy Diehl Road and Moonachie Avenue. The hangar apron is located to the north of the building.

Hangar 121B was erected in 1971 and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior of the hangar is approximately 11,500 square feet (half of the total area of Hangar 121) and consists primarily of hangar area, with smaller portions used for office space, a boiler room, and maintenance and storage areas. The hangar and office areas are heated with a gas-fired forced hot air heating system. Water and sewage services are provided by municipal sources.

At the time of CDM's inspection, the hangar storage area contained the following materials:

- Cases of oils, lubricants, and solvents
- Janitorial supplies and cleaners
- Nitrogen canisters are located outside the fenced area within the hangar

- A tool washing basin; labeled 'non-toxic'
- Two 55-gallon drums labeled 'waste oil' and 'other wastes'
- A 55-gallon drum of mineral spirits
- A steel storage cabinet labeled 'flammable' containing automotive paint, MEK, primers, adhesives, and thinners (located on the west side of the hangar)

The hangar contains a helicopter and an aircraft towing vehicle. The hangar space also includes a fenced storage area located inside the hangar space. The storage area contains office files, tools, work table, parts, and a hydraulic pump. Located outside the fenced area are tool cabinets, work tables, tires, landscaping equipment, a drill press, a blasting machine, a cutting machine, and nitrogen canisters. No staining or discharges were observed in the area.

Four floor drains are located within the hangar which discharge to an oil/water separator system located beneath the hangar apron to the north. The oil is reportedly contained in a 250-gallon waste oil UST and the water is discharged to the stormwater sewer line.

Signature Flight Support Group

Signature Flight Support Group (Signature) occupies Hangars 15 at 401 Industrial Avenue and Hangars 16 and 17 at 112 located on Riser Road. Signature has operated as a FBO at the Airport since 1946. CDM was accompanied by Mr. Kevin O'Leary, Operations Manager, during the walk-through, who assisted in describing operations and provided information regarding the Airport.

Operations at Signature hangars and apron areas include:

- Aircraft chartering
- Aircraft and vehicle fueling
- Light aircraft and vehicle maintenance
- Aircraft sanitary service
- Aircraft washing and deicing
- Chemical storage
- Equipment degreasing and washing

The majority of all hangar space Signature occupies is used to store aircraft.

Hangar 15

Hangar 15 is located along the western border of the Airport, north of Hangar 14, and south of Building 27. The hangar apron is located to the east of the building and Industrial Avenue to the west of the building.

Hangar 15 was erected in the mid 1950s and is of steel beam and concrete block wall construction with a poured concrete foundation. The interior of the hangar is 15,000 square feet and consists of spaces for hangars, offices, a boiler room, and a maintenance shop. The hangar and office areas are heated with a gas-fired heating system. Water and sewage services are provided by municipal sources. Hangar 15 was previously serviced by a septic system. The septic disposal field was located north of the building. Sublets within Hangar 15 include Primac Air, Carter Wallace, and Flight Services Group.

The boiler room is located north of the hangar and is accessed via an exterior door. The boiler room contains a gas-fired boiler, hot water heater, air conditioning units, and air compressor. A floor drain is located in the center of the room. According to Mr. O'Leary, the floor discharges to the sanitary sewer line. A Signature vehicle maintenance room is located north of the hangar. The maintenance room contains tool storage, work table and area, waste oil storage in small drums, and small containers of oils and lubricants stored on shelves. According to Mr. O'Leary, the waste oil is removed off site to the Exxon service station. A dry-type transformer is located in the utility room of the hangar. Office space is located along the west and southern perimeter of the hangar.

At the time of CDM's inspection, the hangar contained the following materials:

- A parts washing setup
- A 55-gallon drum of cleaner concentrate
- Small containers of oils and janitorial supplies

The hangar houses aircraft, equipment and tool cabinets. Floor drains located in the hangar reportedly discharge to an oil/water separator located outside the hangar. The oil is stored in a UST located outside the west wall of the hangar. The separated water is reportedly discharged to the sanitary sewer.

The area surrounding the exterior includes the hangar apron to the east, aircraft tie-down area, a 1,500-gallon AST containing propylene glycol with a secondary containment unit, a locked trailer containing tools and landscaping equipment to the north, vehicle parking and Industrial Avenue to the west, and additional vehicle parking to the south. According to Mr. O'Leary, a waste oil UST was decommissioned in-place in the northeast exterior corner of the hangar. Four flush-mounted monitoring wells were observed in the macadam in this area. Mr. O'Leary indicated that clean-up criteria have been met and the NJDEP will close the case upon Signature's sealing of the monitoring wells. CDM has not been able to confirm this with NJDEP.

Hangar 16

Hangar 16 is located along the eastern border of the Airport, north of the FAA control tower, and south of Hangar 17. The hangar apron is located to the west of the hangar and Riser Road is located to the east.

Hangar 16 was erected between 1956 and 1961 and is of steel beam and concrete block wall construction with a poured concrete foundation and a corrugated steel exterior. The interior of the hangar is 25,000 square feet and consists of primarily hangar area, office/maintenance space, and a boiler room. The hangar and office areas are heated with a gas-fired heating system. Water and sewage services are provided by municipal sources. Sublets within Hangar 16 include 801 7th Avenue Group, CVS Inc., J.P. Morgan, Wham, and D.S. Associates.

At the time of CDM's inspection, the hangar or second story storage loft contained the following materials:

- Two 55-gallon drums of deicing fluid
- Storage cabinets labeled 'flammable' and a 55-gallon drum containing waste oil
- A 55-gallon drum of cleaner concentrate

- An empty 55-gallon drum labeled 'hazardous waste'
- Small containers of oils and janitorial supplies

The maintenance/office areas are located on the east side of the hangar and consist of small tool storage, light maintenance, and office areas. Four circular floor drains are located in the hangar space. According to Mr. O'Leary, the floor drains discharge to an oil/water separator system located outside the building. The separated water then discharges to the sanitary sewer and the oil is stored in a 100-gallon UST. According to Mr. O'Leary, the waste oil is removed off site to the Exxon service station.

The area surrounding the building include fuel truck parking at the edge of the tarmac to the south, the oil/water separator to the east, a vehicle parking lot to the north, and the hangar apron to the west. Two 10,000-gallon USTs and one 500-gallon jet fuel over flow UST were located beneath the west exterior hangar apron. These USTs were removed in 1989. A 550-gallon waste oil UST was also removed from beneath the north exterior macadam in 1989.

Hangar 17

Hangar 17 is located along the eastern border of the Airport, north of Hangar 16, and west of Building 70. The hangar apron is located to the west and Riser Road to the east.

Hangar 17 was erected between 1966 and 1976 and is of steel beam and concrete block wall construction with a poured concrete foundation and a corrugated steel exterior. The interior of the hangar is 14,000 square feet and consists of a hangar area, an office/maintenance space, a boiler room, a galley, and a locker room. The hangar is heated with a gas-fired heating system. Water and sewage services are provided by municipal sources. Hangar 17 is entirely sublet by Air Castle.

The maintenance/office areas are located on the east side of the hangar and consist of small tool storage, light maintenance and office areas. A center trench drain is located in the hangar space. According to Mr. O'Leary, the floor drains discharge to an oil/water separator system located outside the building. The separated water then discharges to the sanitary sewer line and the oil is stored in a 50-gallon UST.

At the time of CDM's inspection, the hangar, or its second story storage loft, contained the following materials:

- Six 55-gallon drums of deicing fluid
- One 55-gallon drum containing waste oil
- One-gallon containers of hydraulic oil
- Four nitrogen cylinders
- Three storage cabinets labeled 'flammable' consisting of oils, spay paint, MEK, and aircraft wax finish

The immediate areas include an aircraft tie-down to the north, a hangar apron to the west, a vehicle parking lot to the south, and Building 70 to the east.

Texaco Fuel Farm

The Texaco Fuel Farm (Texaco) is located on the south side of Malcolm Avenue approximately 200 feet west of the Industrial Avenue and Malcolm Avenue intersection. Texaco has operated at this location at the Airport since August 1972. CDM was accompanied by Mr. Dan Calipa, Facilities Manager of Atlantic Aviation, during the walk-through, who described operations and provided information on the use and history of the Texaco facility.

Operations at Texaco include bulk delivery of aviation fuels and unleaded gasoline by tanker truck to the facility. Fuel is then distributed to the FBOs at the Airport by Atlantic Aviation trucks.

The Texaco facility consists of seven ASTs located within a concrete block bermed, geotextile lined, secondary containment area and one AST outside the secondary containment area. **Table 5-3** in Section 5 of this report provides information on the size, contents and date of installation of these ASTs. Stormwater and any spilled materials are collected in the containment dike, directed toward a center drain and discharged through a sand trap to a 2,000-gallon underground oil/water separator feed tank. As the feed tank fills, a level controller activates a surface-mounted pump to route the liquid to 3,300-gallon oil/water separator located within the containment area. The separated water is discharged to Berry's Creek sewer under authority of a NJPDES-stormwater discharge permit (NJ0031194). The segregated water is directed to an AST located within the containment area.

The fuel pump to the unleaded gasoline AST is located outside along the containment area. The dispensing pump for the fueling trucks is located along the western perimeter of the facility. A storm drain is located along the north exterior wall of the containment area. The drain discharges to an underground oil/water separator located along the east border of the facility. The separated water is discharged to the storm sewer and the oil is collected in a 2,000-gallon UST.

At the time of CDM's inspection, the following materials were noted outside the containment area at the Texaco facility:

- Two 55-gallon drums of waste oil and diesel fuel
- Three 55-gallon drums labeled 'sediment and leaves' stored on their side

A spill response kit and an oil rag container are also located outside the containment area.

The immediate surrounding area of the Texaco facility includes weeded, undeveloped property (since the clearing of the former hangars and buildings in 1961) to the east, west, and south, and a large pharmaceutical building across Malcolm Avenue to the north.

Exxon Fuel Farm

The Exxon Fuel Farm is located on the south side of Malcolm Avenue approximately 500 feet west of the Industrial Avenue and Malcolm Avenue intersection. Exxon has operated at this location on the Airport since August 1947. CDM was accompanied by Jay J. Hoffracker, Exxon Aviation Operations Supervisor, during the walk-through. Mr. Hoffracker described operations at the facility and provided information regarding history and use of the facility.

Operations at Exxon include bulk delivery of aviation fuels and unleaded gasoline by tanker truck to the facility. Fuel is then distributed to the FBOs at the Airport by Signature Flight Support Group.

The Exxon facility is comprised of eight ASTs containing jet aviation fuel and aviation gasoline located within a bermed, lined, secondary containment area. Two ASTs are also located outside the containment area. The containment area is lined with segments of a rubberized geotextile material which appears to have been heat welded together to form an impermeable layer. **Table 5-3** of this report provides information on the size, contents and date of installation of these ASTs. The containment area contains a drain that discharges to an underground oil/water separator system. The separated water is discharged to the storm sewer line, which then is discharged via a permitted outfall to Berrys Creek. The waste product is collected and stored in a 750-gallon UST.

The bulk fuel transfer from the tanker trucks to the facility and the transfer of fuel from the facility to the Signature delivery trucks is performed in the same location; under a full canopy, on a concrete pad located just north of the AST containment area. Two trench drains span the length of the loading area. The drains are connected to the oil/water separator system. Approximately 12 flush-mounted monitoring wells were observed in the facility.

A small, one-story office building is located in the northwestern portion of the facility. The building is heated by an natural gas-fired heater system. Water and sewage services are provided by municipal utilities. Approximately 15 old or unused looking fuel delivery trucks are parked in a gravel lot which comprises nearly all of the south portion of the facility. Stained soils were observed on the surface in areas of the graveled lot in numerous locations.

Section 4
Records Review

CDM conducted a review of environmentally related records for the Airport and surrounding properties. The primary sources of the records reviewed include regulatory agency databases and files, current USGS topographic quadrangle map, historical aerial photographs, and fire insurance maps. This section summarizes the record review findings and includes additional information acquired from several individuals familiar with the property background. A detailed discussion of the findings from the site reconnaissance activities is presented in Section 5.

4.1 Subject Property History

Background information regarding historical use of the Airport and surrounding properties was obtained from APSI representative interviews, historic aerial photographs, historic topographic maps, Sanborn Fire Insurance Maps (Sanborn Maps), the Port Authority's Internet Web Page, regulatory agencies records and site inspection observations.

The available information reviewed for the Airport from maps and aerial photographs is summarized in **Table 4-1.**

Table 4-1
Airport Information Reviewed from Maps and Aerial Photographs

Source	*Year*
Aerial Photographs	1947, 1950, 1953, 1956, 1961, 1966, 1985, 1987, 1995, 1997
Sanborn Maps	1951, 1963
U.S.G.S. Topographic Maps	1940, 1955, 1967, 1967 (Photo revised 1981)

Aerial photographs taken at periodic intervals depicting development of the Airport were provided for review by the Port Authority and EDR, Inc. (EDR). The photographs are a combination of various altitude color and black and white prints showing the Airport property and surrounding areas over a period of 51 years. Aerial photographs older than 1940 were not readily available.

A description of each aerial photograph is provided to illustrate the relevant site conditions and features. The evaluation details are influenced in part by the scale and quality of photographs. Selected copies of the aerial photographs are provided in **Appendix D.**

EDR was requested to research and, if available, provide copies of Sanborn Maps for the Airport. Sanborn Maps were produced by the Sanborn Map Company from the 1880s to the 1930s, but coverage for many cities was extended into the 1940s and 1950s through the use of correction sheets. Sanborn Maps from 1951 and 1963 provided by EDR are included in **Appendix E.**

The Airport is located on the Weehawken, NJ - NY quadrangle of the United States Geological Survey (U.S.G.S.) Topographic Map. A copy of the most recent map is illustrated in **Figure 3-1** in Section 3. Color copies of the U.S.G.S. maps from 1940, 1955 and 1967 are included in **Appendix F.**

A chronological summary description of the aerial photographs, Sanborn Maps and the historical topographic quadrangle maps is provided below. The earliest historical source used as part of the records review is the 1940 historical topographic map.

1940 Historical Topographic Map

The presently configured Airport did not exist in 1940; however, Bendix Airport is located within the property. No runways or landing strips are shown on this map. Industrial Avenue is as it currently appears. A golf course exists north of Route 46 and Bendix Aviation building exists where Allied Signal is located (see **Appendix F**).

An unnamed, unimproved road cuts through the north portion of the property essentially parallel to Route 46, connecting the north section of Industrial Avenue to the north section of Redneck Avenue. Other roadways exist within the property as well. A small structure appears at the end of an unimproved road where Redneck Avenue is now.

1947 Aerial Photograph

Runway 32/14 (Taxiway F), which connects the southern ends of the two main Runways 6 and 19, additional taxiways, and Hangar 1 are under construction. These main runways are shorter and narrower than the 1998 existing runways. Nine structures reside on the Airport property which appear to be:

- Building 9
- Hangars 12 and 2
- A small building located across Malcolm Avenue which is a parking lot for Building 27
- Building 34 and two buildings/sheds at the northwest corner of the Airport where the Exxon service station is located
- A small building and hangar are located in the northeastern corner of the Airport

Hangar 1 is currently being constructed. The majority of the southern portion of the Airport consists of undeveloped and grassy areas. The immediate surrounding properties to the north, south and east are also predominantly undeveloped. Sparse development is noted on the adjoining property to the west along the Industrial Avenue and Malcolm Avenue intersection. A two-story building with two stacks, a second hangar building and several smaller buildings occupy the property that is currently used by the Texaco fuel farm. According to the 1951 Sanborn Map discussed below, the main building is being used for manufacturing, hangar and office space. The area occupied by the existing Exxon fuel farm on Malcolm Avenue appears to be a parking area with one small building.

1950 Aerial Photograph

In addition to the structures viewed in the 1947 aerial photograph, Hangar 3 and three small buildings north of Building 9 (which is presently a cleared area) and the lighting vault (located in the center of the Airport) are existing structures in this photograph. The two main runways have been extended to the north. Several small buildings and Quonset huts have been constructed along the western perimeter of the Airport along Industrial Avenue. The third Runway 32/14 (named Taxiway F) and additional taxiways have been completed. Hangar 12 has been razed and replaced with a smaller building. Three ASTs and a building have been constructed in the area occupied by the Exxon fuel farm. Several trucks are also parked in the area. An open dumping area was observed west of the Airport and west of the Conrail railroad.

1951 Sanborn Map

This Sanborn map covers the immediate area at the Industrial Avenue and Malcolm Avenue intersection located at the western border of the Airport property and areas further north along Industrial Avenue. Hangar 1 is occupied by Willis Air Service Inc. (Willis). The heating system is described as fuel oil fired steam heater. South of Hangar 3 is a small one-story carpenter shop and a freight terminal for Willis. Hangar 2 is occupied by Atlantic Aviation Corporation. The hangar is described as steel trusses with a concrete floor and an oil fueled steam heating system. The two concrete floored Quonset huts south of Hangar 2 are occupied by Van Dusen Air Craft Supplies and Fresh Corp. which is a day-old fruit importer.

The area occupied by the Texaco fuel farm is also occupied by Robinson Aviation, Inc. The property includes two hangars and one small building with operations described as testing and repairing, instrument manufacturing, and servicing. The property to the south of the Texaco fuel farm, along Industrial Avenue, is occupied by a large industrial building. The building is occupied by Air Associates, Inc. Interior areas include a large machine shop, plating and heat treating rooms. Exterior areas include an oil storage area, explosive storage, oil recovery storage, and an 8,000-gallon fuel oil UST.

The area occupied by the Exxon fuel farm contains one small building, two 10,000-gallon ASTs and one 9,000-gallon gasoline AST.

1953 Aerial Photograph

Two buildings located in the area of Building 34 (Exxon service station) have been razed. Three residential homes are located at the southwestern corner of the Airport along Moonachie Avenue. No other significant changes are noted to the Airport. Further development is noted on the adjoining property to the north across Route 46.

1956 Aerial Photograph

The two main runways have been extended to the south and Runway 32 has been extended to the east as compared to the earlier aerial photographs. The drainage ditch which runs along Riser Road on the east perimeter of the Airport property has been re-routed due to the Runway 32 extension. Buildings. 70 and 33 has been constructed. The northwestern portion of the Airport property is currently used as a parking lot, most likely for the facility across Industrial Avenue. Seven uniform

buildings, possibly army barracks, are located at the eastern border of the Airport. The buildings are part of a property which stretches off the Airport and onto Redneck Avenue.

1961 Aerial Photograph

Hangars 3, 12, 14, 15, and 16 and Building 27 have been constructed. A hangar at the northeast corner of the Airport as well as hangars and buildings in the area of the Texaco fuel farm have been razed.

Seven buildings and other structures in the immediate area at the eastern border of the Airport property, which appeared in the 1956 photograph, have been cleared. Other smaller areas further south along the eastern border of the Airport property along Redneck Avenue appear cleared. One of the areas appears to have some stockpiling of debris.

1963 Sanborn Map

Hangar 12 has been reconstructed (1961) with steel trusses and concrete floor and is occupied by The Texaco Company. Hangar 15 has been constructed.

1966 Aerial Photograph

A service road has been constructed southwest of Runway 6 for use of runway approach systems. The residential homes at the southwestern corner of the Airport property appear to have been razed. Increased commercial construction is apparent on the adjoining properties to the northeast across Route 46.

1976 Aerial Photograph

Building 72, Hangars 17, 114, 118, 119, 120, and 121, the FAA control tower and additional taxiways have been constructed. The buildings located at the northeastern corner of the Airport property near the Route 46 and Riser Road intersection have been razed. Several smaller buildings and one Quonset hut have also been razed. A smaller building, which appears consistent with the current structure at the Exxon fuel farm, has replaced the earlier building. The former parking lot for the adjacent facility across Industrial Avenue at the northwestern portion of the Airport is now an airplane tie-down area.

The Airport appears to have reverted to a two-runway configuration by the conversion of Runway 32/14 to Taxiway F. Further rerouting of the drainage ditch has been established around the end of Runway 19.

Increased construction/development continues in the areas surrounding the Airport property.

1985 Aerial Photograph

Hangars 4, 5, 111, and 113 and Building 112 and the aeronautical museum have been constructed. No other significant changes are noted to the property. Increased development is apparent on the surrounding properties.

1987 Aerial Photograph

Hangar 107, the FAA control tower and museum have been constructed. An area west of Hangar 11 which included a portion of a creek is being cleared and filled. Several structures or trailers are visible in the area. No other significant changes are noted on the Airport.

1995 Aerial Photograph

No further activities are apparent in the area formerly being cleared and filled west of Hangar 11. Vegetation appears to be growing back into the area. Taxiway expansion is apparent at the northern portion of the Airport.

1997 Aerial Photograph

Hangar 109 at the southeastern portion of the Airport property is currently under construction. No other significant changes are noted.

4.2 Standard Environmental Record Sources

A search of environmental regulatory databases was conducted for the Airport and surrounding properties. The database search was conducted by EDR (Inquiry No. 228306.4r, dated February 11, 1998). The search was conducted to determine whether documentation exists related to environmental incidents at the Airport or surrounding properties. The databases searched and respective search distances from the property as specified by ASTM guidelines include those listed below.

EPA Database/Search Radius

- NPL (National Priorities List) - 1 mile
- Delisted NPL - target property
- No Further Remedial Action Planned sites (NFRAP) — ½ mile
- RCRIS-TSD (Resource Conservation and Recovery Information System - Treatment Storage and Disposal Facilities) - 1 mile
- CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) - 0.5 miles
- CERC-NFRAP (CERCLIS - No Further Remedial Action Planned) - target property
- CORRACTS (Corrective Action Report) - 1 mile
- RAATS (RCRA Administrative Action Tracking System) - target property
- RCRIS - Small and Large Quantity Generator - 0.25 miles
- HMIRS (Hazardous Materials Information System) - target property
- PADS (PCB Activity Database System) - target property
- ERNS (Emergency Response Notification System) - target property
- TRIS (Toxic Chemical Release Inventory System) - target property
- FINDS (Facility Index System) - target property
- NPL Liens - target property
- MLTS (Material Licensing Tracking System) - target property
- TSCA (Toxic Substance Control Act) - target property
- ROD (Record of Decision) - 1 mile
- CONSENT (Superfund (CERCLA) Consent Decrees) - 1 mile

State Database/Search Radius

- State Hazardous Waste (State Hazardous Waste Sites) - 1 mile
- State Landfill - 0.5 miles
- AST (Above Ground Storage Tanks) - 0.125 miles
- LUST (Leaking Underground Storage Tanks Sites) - 0.5 miles
- UST (Registered Underground Storage Tanks) - 0.25 miles
- Coal Gas (Former Manufactured Gas Sites) - 1.0 mile

The EDR reported nearly 450 records on the Airport or within their respective ASTM search radii from the Airport. This high volume of records is consistent with the size and the historic use of the Airport property and its surroundings. It should be noted that these databases cover a limited time span, primarily years after 1980. Consequently, not all waste sites or spills may be indicated in these databases if they existed or occurred prior to the installation of the database and/or have not been included on the governmental databases. The results of the EDR database search and descriptions of the environmental information are provided in **Appendix G.**

Airport Property and Tenants

EDR reports the Airport property and/or tenants on the property are listed under the following databases as presented in **Table 4-2.**

Table 4-2
On-Site Facilities Identified in the EDR Report

ASTM Required Environmental Databases	Tenant
CERCLIS	Atlantic Aviation Corp
LUST	Teterboro Airport Atlantic Aviation Million Air
UST	Teterboro Airport Atlantic Aviation First Aviation
RCRIS - Small Quantity Generator (SQG)	Atlantic Aviation Corp Exxon Co USA #32007 PNA Aviation Corp Port Authority of NY & NJ
RCRIS - Large Quantity Generator (LQG)	Teterboro Airport Executive Jet Management Falcon Jet Corp First Aviation Services, Inc. Million Air Port Authority Helicopter Maintenance Facility Texaco Inc. Aviation Division

Additional Databases	Tenant
NJ Spills	Atlantic Aviation Million Air
NJ Releases	Atlantic Aviation Million Air
Facility Index System (FINDS)	Teterboro Airport Atlantic Aviation Corp Executive Jet Mgmt Exxon Co USA #32007 Falcon Jet Corp First Aviation Services Inc Million Air PNA Aviation Corp Port Authority Helicopter Maintenance Facility Texaco Inc. Aviation Division

The information received from the EDR government database and APSI file search for major tenants are summarized below.

Atlantic Aviation

EPA ID No.: NJD011309192
Reported Government Databases: CERCLIS, LUST, UST, RCRIS-SQG, NJ Release, NJ Spills, FINDS

CERCLIS: EDR database search reports Atlantic Aviation is currently under investigation by the government to assess the extent of further action. No information or notification was provided by the tenant of CERCLIS designation or status.

LUST: Atlantic Aviation is listed under NJDEP BUST Case Number 88-03-1143. The case was closed as of November 21, 1991.

UST: EDR reports Atlantic Aviation retains 12 active registrations on USTs A1, A2, A8, A9, E1, E3, E4, E5, E6, E7, E11, and E12 . USTs E4 and E5 remain active. The remaining USTs have been removed or decommissioned.

NJ Release: The site is listed under Case Number 93-04-22-0753-38. The status of the spill is reported as "Transfer valve was opened causing a spill on the ramp. Material is contained, cleanup is in progress."

Exxon Fuel Farm

EPA ID No.: NJD981131675
Reported Government Databases: No reported databases

Based on the information obtained from the records on file at APSI, contaminated groundwater exists at the site. According to a September 23, 1997, report entitled "Groundwater Sampling Update Report, Teterboro Airport Fuel Farm #33033, Malcolm Avenue, Teterboro, New Jersey" prepared by Handex of New Jersey (Handex) in Morganville, New Jersey, an environmental

investigation has been conducted on the facility. According to this report, a surface spill of approximately 5,588 gallons of Jet A fuel occurred in June 1989, and a waste oil tank was removed in 1994. During the subsequent investigations, 14 soil borings, 50 soil gas sampling tubes, 2 piezometers and 11 groundwater monitoring wells have been installed around the tank farm at the facility. According to the Handex report, ten groundwater sampling episodes took place between March 1995 and July 1997. Although there is a NJDEP Spill Hotline record of a reported discharge of hazardous materials dated October 2, 1992, no information contained in the Handex report indicates the hotline notification. A site plan of the Exxon fuel farm investigation is provided in **Figure 4-1.**

According to the Handex report, concentrations of benzene, toluene, ethylbenzene, xylene, MTBE, TBA, and naphthalene have been detected at the Exxon Fuel Farm leasehold. Wells within the suspected source area (MW-3, MW-6, and MW-8) display more consistent concentrations values compared to the site wells (MW-7, MW-10, MW-11, and MW-12) which are located downgradient of the suspected source area. According to the last reported sampling event, July 11, 1997, benzene was the only compound detected in concentrations exceeding NJDEP Groundwater Quality Criteria (GWQC) in wells MW-6, MW-8, MW-11, and MW-12. Linear regression analysis of benzene concentrations was performed on wells MW-1, MW-6, MW-11, and MW-12. The results indicate a decreasing trend of benzene concentrations in MW-1 and MW-12; however, an increasing trend was depicted in MW-6 and MW-11.

During the monitoring period of June 1995 to July 1997, site gauging and liquid phase hydrocarbon (LPH) recovery has been performed bi-monthly. Of the twelve monitoring wells and three piezometer on site, two wells (MW-3 and MW-8) routinely contain measurable amounts of LPH. LPH has also been measured in MW-2 and piezometer-2. A passive bailer was installed in MW-3 on October 5, 1993 and second bailer was installed in MW-8 on January 25, 1994. The passive bailers have been maintained in the two wells through to the most recent reporting period of September 1997. The bailers have recovered approximately 80 gallons of LPH. The data indicate a decreasing recovery rate.

According to a cone penetrometer survey conducted on September 8, 1997, the proposed remedial action plans include soil excavations and periodic in-situ treatment consisting of enhanced fluid recovery by use of a vacuum extraction.

CDM has contacted the NJDEP regarding the current groundwater contamination investigation at the Exxon Fuel Farm and been informed that, other than the 1992 discharge report, there is no record of any NJDEP oversight of the investigation being conducted at the facility. Although this is not typical, there is no violation of New Jersey June 1993 regulations governing site investigation and cleanups provided the procedures expressed in these regulations is strictly followed[1]. CDM cannot render an opinion on the level of compliance with the Technical Regulations based on the limited information contained in the Handex report, nor can we assess the probability of potential off-site groundwater contamination without additional information

[1]Technical Requirements for Site Remediation (N.J.A.C. 7:26E, Technical Regulations). The Technical Regulations specify sampling protocols (i.e., sampling frequencies, analytical methods, etc.) and establish the minimum technical requirements to be followed during site investigations, remedial investigations and remedial actions conducted in New Jersey.

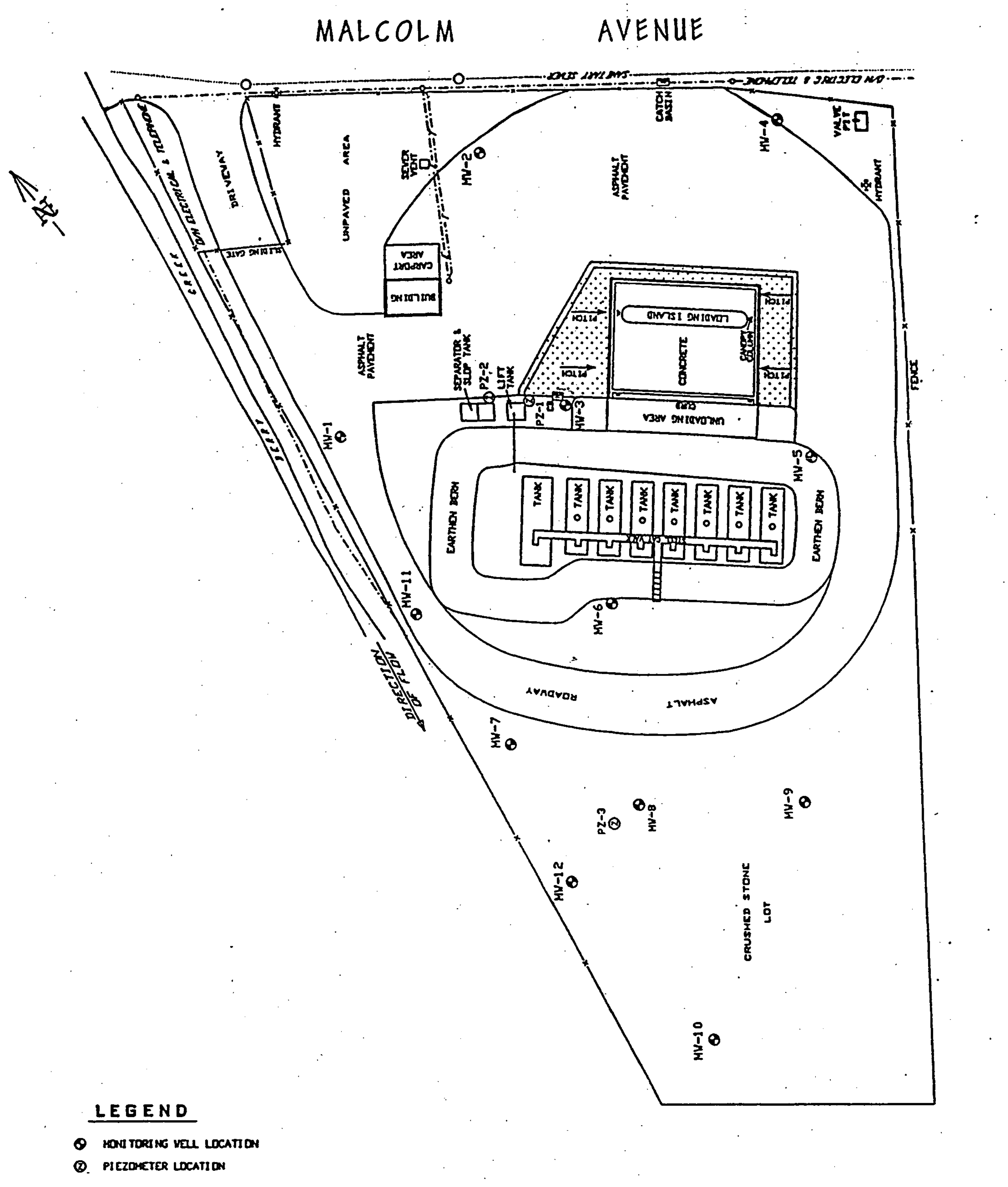

Figure 4-1 **Site Plan** Exxon Fuel Farm Malcolm Avenue Teterboro Airport Teterboro, New Jersey	Source: Groundwater Sampling Update Report September 23, 1997 Prepared by Handex of New Jersey, Inc. for Exxon Company USA Scale: 1" = 50' **CDM** Camp Dresser & McKee

Exxon Service Station

EPA ID No.: NJD1000542316
Reported Government Databases: RCRIS-SQG, FINDS

RCRIS-SQG: EDR reports no violations found in the government databases.

According to the NJDEP, Central Field Office, the Exxon service station is listed under NJL600053458, Case Number 9102281432. CDM noted seven groundwater monitoring wells located around the perimeter of the property during the site reconnaissance; most of the wells were located along the west and northwest border. A site plan of the Exxon service station is provided in **Figure 4-2**. CDM contacted the NJDEP case manager, Mr. Michael Flite, regarding the status of the investigation of the Exxon Service Station. According to Mr. Flite, a Remedial Action Workplan (RAW), which was due from Exxon in March 1998, was submitted to his office on April 30, 1998. Mr. Flite has not reviewed the RAW and expects the RAW to address an on-going groundwater contamination investigation. Related documents were not included in the materials provided to CDM during the file review in Trenton on March 19, 1998. CDM cannot evaluate the level of compliance with the Technical Regulations based on the lack of information on the Exxon Service Station, nor can we assess the probability of potential off-site groundwater contamination without reviewing such information.

First Aviation

EPA ID No.: NJD981564743
Reported Government Databases: UST, RCRIS-LQG, FINDS

UST: EDR reports one active UST registration for UST E1; however, according to APSI records, E1 was removed in 1986.

RCRIS-LQG: EDR reports no violations found in the government databases.

Jet Aviation

No EPA ID Reported

Previous tenant Falcon Jet, EPA ID No.: NJD1000179674
Reported Government Databases: RCRIS-LQG, FINDS

RCRIS-LQG: EDR reports no violations found in the government databases. EPA records reports Falcon Jet EPA ID No. NJD 981491509 was deactivated since ceasing operations at facility which generates hazardous waste.

Previous tenant PNA Aviation Corp, EPA ID No.: NJD1000103452
Reported Government Databases: RCRIS-SQG, FINDS

RCRIS-SQG: EDR reports no violations found in the government databases.

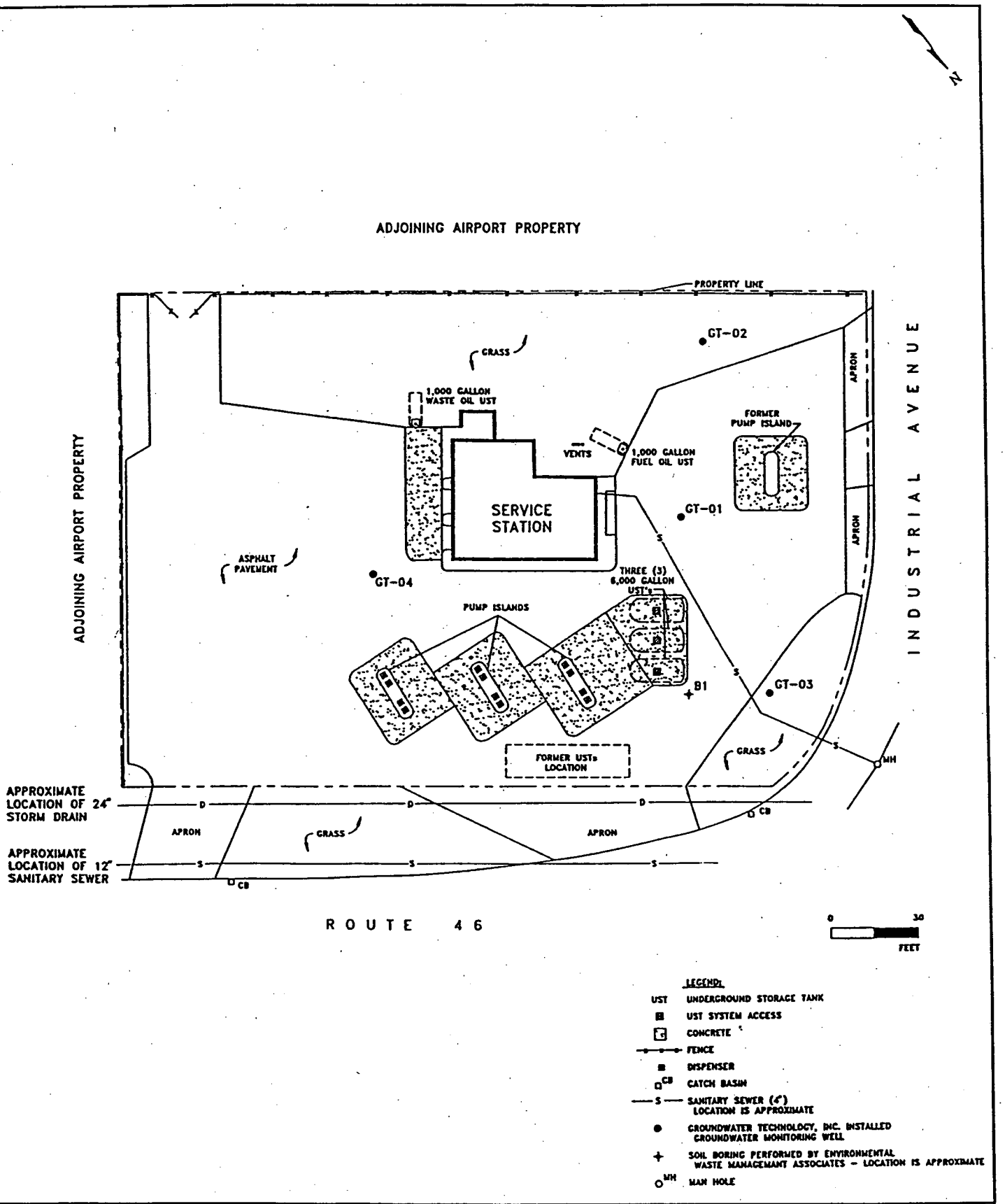

Figure 4-2 **Site Plan**
Exxon Service Station
Industrial Avenue & Rt. 46 East
Teterboro Airport
Teterboro, New Jersey

Source:
Phase I Environmental Investigation
July 19, 1991
Prepared by Groundwater Technology, Inc.
for Exxon Company USA
CDM Camp Dresser & McKee

Million Air Aviation

No EPA ID Reported
Reported Government Databases: LUST, NJ Spills, NJ Release

LUST: Million Air is listed under NJDEP BUST Case Number 89-10-26-1153. Information on this case, a UST closure, was included in CDM's NJDEP file review. The case manager stated that the case is complete, no further action will be required and the case will be closed upon payment of oversight fees.

NJ Release: Million Air is listed under NJDEP Case Number 93-05-03-110. NJDEP file indicates NJ Spills the case is closed.

NJ Spills: Million Air is listed under Case Number 95-08-02-1847. The status of the spill is reported as "Spill due to the venting of air tanks, cleanup was done by Airport operations and Jet Aviation Co." No further information has been identified on this case.

Port Authority of New York and New Jersey

EPA ID No.: NJD982181992
Reported Government Databases: RCRIS-LQG, FINDS

RCRIS-LQG: EDR reports no violations found in the government databases.

Texaco Inc. Aviation Division

EPA ID No.: NJD084015452
Reported Government Databases: RCRIS-LQG, FINDS

RCRIS-LQG: EDR reports no violations found in the government databases.

Based on the information obtained from the records on file at APSI, impacted groundwater and soil were discovered upon the removal of a 1,000-gallon slop fuel UST under NJDEP case number 97-10-28-1426-57. According to a Remedial Investigation Report dated January 20, 1998, 73 tons of petroleum hydrocarbon impacted soil was excavated from the area of the former UST. Analytical data from post-excavation soil samples taken from the southwestern corner of the excavation along the wall of the secondary containment area report benzene, toluene and xylene (common constituents of gasoline) exist in the soil above current NJDEP soil cleanup criteria. Analysis of a groundwater sample collected from the excavation report benzene, methylene chloride, and lead concentrations exceed NJDEP GWQS. A site plan of the secondary containment area is provided in **Figure 4-3.**

With the exception of the Exxon service station, the Exxon fuel farm and the Texaco fuel farm, there is no conclusive evidence that the on-site tenants have adversely impacted the Airport property based on the EDR government database search. The EDR government database search did not list any violations associated with the property and CDM did not receive evidence that hazardous wastes/substances/materials have created an environmental concern at the Airport.

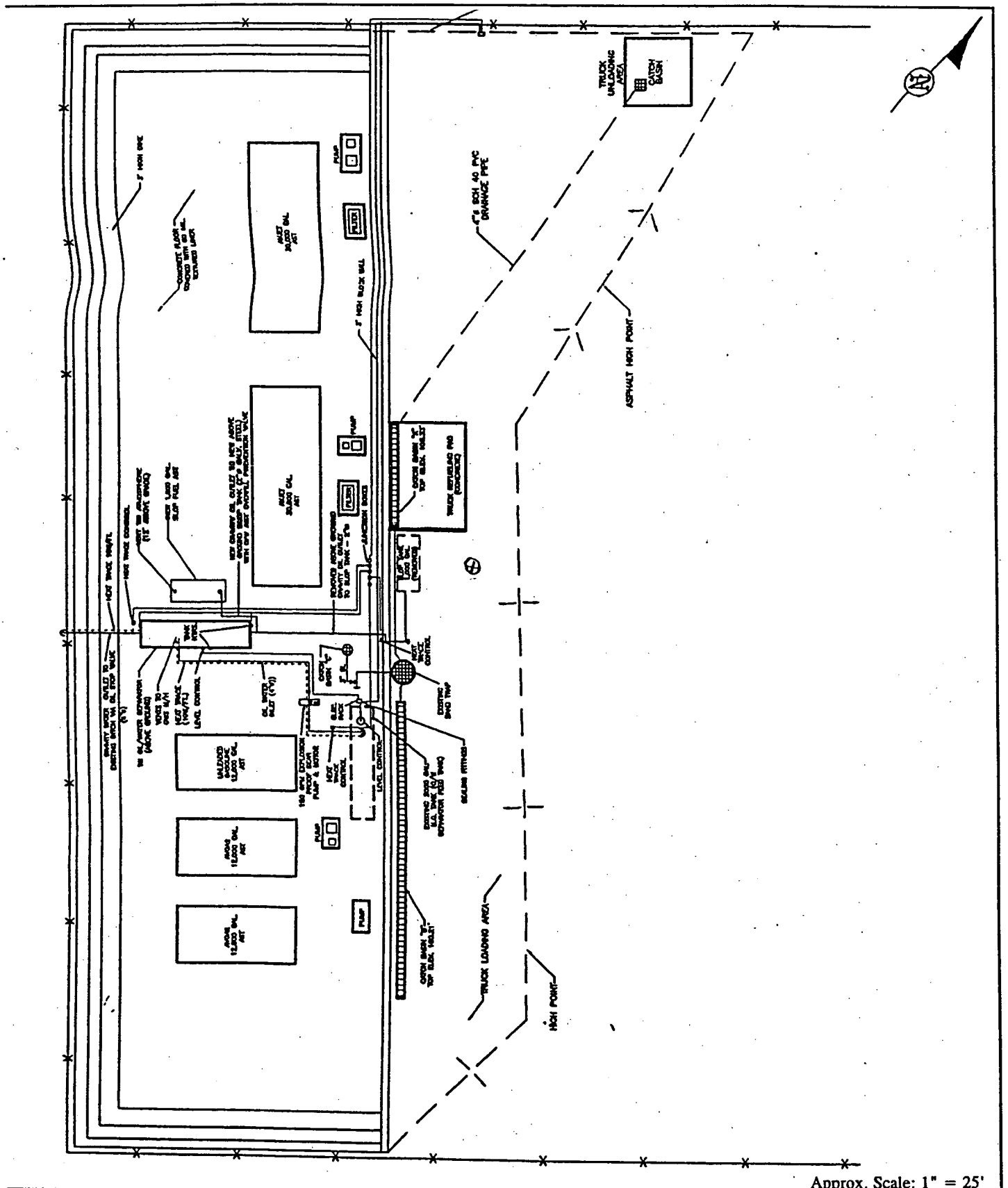

Figure 4-3 **Secondary Containment Area**
Texaco Fuel Farm
Malcolm Avenue
Teterboro Airport
Teterboro, New Jersey

Source:
Remedial Investigation Report
January 20, 1998
Prepared by Secor International, Inc.
for Texaco Refining and Marketing Inc.
CDM Camp Dresser & McKee

Adjacent and Surrounding Properties

Adjoining properties listed by the government databases are tabulated in **Table 4-3**.

Table 4-3
Off-Site Facilities Identified in the EDR Report

Government Database	ASTM Minimum Search Radius	No. Of Sites in EDR Report	No. of Sites Which Could Pose A Recognized Environmental Condition to the Subject Property[1]
NPL	1 mile	5	0
RCRIS-TSD	1 mile	7	0
CERCLIS	½ mile	10	1
SHWS	1 mile	46	3
NFRAP	½ mile	5	0
RCRIS-LQG	¼ mile	58	0
RCRIS-SQG	¼ mile	30	0
ERNS	⅛ mile	0	0
LUST	½ mile	59	5
SWF	½ mile	3	0
UST	⅛ mile	57	0
	Totals	280	9

Note 1 *CDM's opinion of sites that could pose a recognized environmental condition (REC) to the subject property is based on the proximity of the database site to the closest border of the Airport property, reports of any violations or discharges included in the EDR report, site-specific information obtained from the standard historical sources and anticipated general groundwater flow direction to the south.*

The facilities which CDM believes qualify as posing potential RECs to the Airport are identified on the EDR map in pink marker, and correspond to Sites 27, 23, 44, 54, 76, 87 and 89. Please refer to the EDR report in **Appendix G** for details on these facilities.

The following lists the databases included in the EDR report, a brief description of what facilities they monitor, and discussion of the findings as it relates to the Airport.

National Priorities List (NPL)

Also known as Superfund, the NPL database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the USEPA. Five NPL sites are listed within the ASTM search radius. One of the NPL sites, Ventron located on Ethyl Boulevard in Wood Ridge, is located approximately one-eighth of a mile to the southwest of the Airport property.

EPA notes indicate Ventron was a chemical processing operation from pre-1953 until 1974. Groundwater and airborne particulates containing concentrations of heavy metals have migrated off-site and threaten extensive wetlands and densely populated areas. Based on groundwater flow direction to the south, as documented at locations within the Airport, and anticipated groundwater flow direction also to the south for the immediate area of the NPL site, CDM believes that the Ventron facility does not pose a significant threat to the environmental condition of the Airport property.

Resource Conservation and Recovery Act (RCRA) Sites

The RCRA Information System (RCRIS) contains data compiled for the RCRA and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRIS lists sites which generate, or treat, store or dispose (TSD) hazardous waste as defined by RCRA. The source of this database is the USEPA.

Seven RCRA TSD sites were listed within the ASTM search radius. Based on anticipated groundwater flow direction to the south and proximity of the listed sites to the Airport property, none of the sites are considered to pose a significant threat to the environmental condition of the Airport property.

Comprehensive Environmental Response, Compensation and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the NPL and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Ten CERCLIS sites are listed within the ASTM search radius. Two CERCLIS sites, Allied Signal located on Route 46 East, Teterboro, NJ (Map ID 23) and Merck & Co., Inc located at 111 Central Avenue, Teterboro, NJ (Map ID 27) are located within one-eighth of a mile of the Airport property. Both sites are currently under investigation to assess the extent of further action; however, no discharges have been reported from either site. CDM has requested more detailed information from USEPA on these facilities but no response has been received to date.

State Hazardous Waste Site (SHWS)

The SHWS records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent to Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data comes from the NJDEP, Site Remediation Program, Site Status Report.

Forty-six SHWS are listed within the ASTM search radius. Three SHWS, Sumitomo Machinery Corp of America, located at 7 Malcolm Avenue, Teterboro, NJ, (Map ID 44), Ferris Plating Co., located at 114 Moonachie Ave, Teterboro, NJ (Map ID 87), and Esselte Pendaflex Corporation, located at 10 Cesar Place, Moonachie, NJ (Map ID 89) are located within one-eighth of a mile of the Airport property. Due to the proximity of these sites to the Airport property these three SHWS

have the potential to impact the environmental condition of the Airport property.

CERCLIS-No Further Remedial Action Planned (NFRAP)

NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund Action or NPL consideration.

Five NFRAP sites are listed within the ASTM search radius. In CDM's opinion, none of the sites pose a significant concern to the environmental condition of the Airport.

RCRIS Large Quantity Generator (LQG) and Small Quantity Generator (SQG)

The EDR report contains data compiled for the Resource Conservation and Recovery Act and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRIS includes reports on large (LQG) and small (SQG) quantity generators. A LQG must generate more than 1,000 kilograms (kg) of hazardous waste in any given month, while a SQG must generate between 100 kg and a 1,000 kg (between 220 lbs and 2,220 lbs) of hazardous waste in any given month.

Fifty-eight LQGs and thirty SQGs are located within the ASTM search radius. Of these sites, 21 LQG and 14 SQG are located close to the Airport; however, no discharges or violations were reported through this database and in CDM's opinion, none of the sites pose a significant concern to the environmental condition of the Airport. Several of the sites are included in other databases and are discussed in those databases.

Emergency Response Notification System (ERNS)

The ERNS database contains information on reported releases of oil and hazardous substances. No sites are reported within an eighth of a mile of the Airport.

Leaking Registered Underground Storage Tank (LUST)

LUST reports contain an inventory of reported incidents by the NJDEP. Fifty-nine LUST sites are reported within the ASTM search radius. Based on anticipated groundwater flow direction and proximity of the site to the Airport property, ten of the LUST sites have the potential to impact the environmental condition of the Airport property. According to the EDR record search, six of the sites have been closed by the NJDEP and the remaining five are currently active. The five active sites, including Marshall Warehouse/Transcontinental Trucking located at 200 Central Avenue, Teterboro, NJ (Map ID 27), two sites at the Pepsi Cola Co. located at 12 Plant Road Extension, Hasbrouck Heights, NJ (Map ID 54), St. John Trucking Terminal located at 50 Moonachie Avenue, Moonachie, NJ (Map ID 76), and the Cesar Palace Pump Station located on Moonachie Avenue, Moonachie, NJ (Map ID 89) have the potential to impact the Airport in CDM's opinion.

Solid Waste Facility/Landfill Sites (SWF)

NJDEP contains an inventory of solid waste disposal facilities or landfills in New Jersey. Three SWF sites are listed within the ASTM search radius. One of the SWF sites, Borough of Wood Ridge Public Works, is located within one-eighth of a mile to the south of the Airport property. According to EDR record search information, this SWF accepted vegetated waste and is currently closed.

Based on the proximity of the three listed SWF sites and anticipated groundwater flow direction coupled with no reported discharges from the sites, none of the sites are considered to impact the environmental condition of the Airport property.

Registered Underground Storage Tank (UST)

NJDEP databases contain an inventory of USTs regulated under NJAC 7:14B and 40 CFR, Subtitle I. Fifty-seven USTs are listed within the ASTM search radius. Of these sites, 27 UST sites are located close to the Airport; however, no discharges or violations were reported through this database and in CDM's opinion, none of the sites pose a significant concern to the environmental condition of the Airport. Several of the sites are included in other databases and are discussed in those databases.

Orphan Sites

Eighty orphan sites located within the respective ASTM minimum search distances were included in the database search package. These are sites that share the same zip code, city or county as the target property; however, the database company has insufficient information to locate the sites.

Of the orphan sites identified, only 26 are located in Moonachie, Little Ferry or Teterboro Boroughs, which are the municipalities that the Airport property exists within. Three of the orphan sites in Teterboro are the Exxon Service Station, the Exxon Fuel Farm and the Texaco Fuel Farm, thus leaving 23 orphan sites for this database search. Information on these 23 orphan sites is summarized in **Table 4-4** at the end of this section.

Based on the information contained in the EDR report, CDM considers the four shaded facilities to represent a potential recognized environmental condition to the Airport. Further research would be needed to positively identify the location of all sites on the orphan list and then further assess whether any additional level of review is recommended.

No violations were reported for the four orphan sites which appear to be located on the Airport (Van Dusen Aircraft Supplies, National Distillers & Chemical Corp., Greif Brothers Corp., and Contract Applications, Inc.) consequently, CDM does not recommend further research into these facilities.

Agency Requests

Under the Federal Freedom of Information Act (FOIA), a formal file search request was made to the USEPA) Region II, the NJDEP, and various Bergen County offices to check for any file information on the Airport that may not have been included in the databases.

CDM received over 60 responses to the FOIA requests from these agencies. The responses stated that CDM's requests have been referred to the appropriate programs and that CDM would be notified when any files have been located.

In response to our request, CDM conducted a file review of records at the NJDEP offices in Trenton, New Jersey on March 19, 1998. Information was made available to CDM for the following Airport facilities:

- American Port Services, Inc.
- Million Air
- Atlantic Aviation
- The Exxon Service Station

No other facilities or records were made available. Further, based on our earlier review of information on file with APSI, the NJDEP records appeared to be incomplete. Consequently, CDM suspects additional files may exist that were not made available initially

Inquiries made by CDM to the three Bergen County municipalities within which the Airport exists, Moonachie, Teterboro, and Little Ferry, did not provide any substantive information relative to potential ASTM recognized environmental conditions on the Airport property. CDM was informed by representatives of these municipalities that they have no jurisdiction on the Airport because it is owned by the Port Authority. This status was later confirmed by representatives of APSI and the Port Authority.

Table 4-4
Orphan Facilities Identified in the EDR Report with Moonachie, Little Ferry or Teterboro Borough Addresses

Facility Name	Address	Government Database	Violations or Status
Balalas Service Station	180 Rt. 46 Little Ferry	RCRIS-LQG, FINDS	No violations found.
Exxon Co. USA	Rt. 46 Little Ferry	RCRIS-LQG, FINDS	No violations found.
Little Ferry Dean SVC	Rt. 46 Traffic Circle Little Ferry	RCRIS-LQG, FINDS	No violations found.
Mobil Oil Corp. SS K6H	270 Rt. 46 Little Ferry	RCRIS-SQG, FINDS	No violations found.
Closed Exxon Service Station	Rt. 46 EB Little Ferry	LUST	Possibly active BUST case started in 1988.
Shell Service Station #4500-0309	Rt. 46 Little Ferry	LUST	Active BUST case started in 1988; possible groundwater contamination.
Little Ferry Service Station	Rt. 46 Little Ferry	UST	No violations noted. Has 13 active, registered USTs.
Amerada Hess Corp.	US Hwy.. 46 Circle Little Ferry	RCRIS-LQG, FINDS, UST	No RCRIS violations. 6 inactive USTs on site.
Memorial School	Liberty Street Little Ferry	RCRIS-LQG, FINDS, UST	No RCRIS violations. One active fuel oil UST on site.
Bergen County Community Utilities Authority	Foot of Mehrhof Rd. Little Ferry	RCRIS-LQG, FINDS	Two on 11/28/84 appearing to be administrative and rectified on same day.

Facility Name	Address	Government Database	Violations or Status
Andrill Oil Corp Bulk Pl.	Mehrhof Rd. Little Ferry	RCRIS-LQG, FINDS	No violations found.
Bergen County Utilities Authority	Foot of Mehrhof Rd. Little Ferry	UST	No violations noted. Has 51 inactive USTs on site.
Newcal Aviation	14 Riser Rd. Little Ferry	RCRIS-SQG, NJ Spills & NJ Release	No RCRIS violations. Oils and solvents dumped on site from anonymous call to NJDEP on 4/22/96. Appears to be active case.
Bekins Van Lines	Moonachie Rd. Moonachie	RCRIS-LQG, FINDS	No violations found.
John S. Swift Co. of NJ, Inc.	Rt 46 E Teterboro	RCRIS-LQG, FINDS, UST	No RCRIS violations. One inactive fuel oil UST on site.
Allied Signal Aero Space	Rt. 46 Teterboro	LUST, NJ Spills & NJ Release	No substantive information on LUST status; 40-gallons of diesel fuel spilled on road on 8/3/97 was cleaned up.
Allied Bendix Aerospace	Rt 46 Teterboro	UST	No violations. Five inactive USTs on site.
Graphic Arts Building Co. Property	North and Main St. Teterboro	UST	No violations. One inactive UST on site.
Contract Applications Inc.	107 Chas. Lindbergh Drive, Teterboro	RCRIS-LQG, FINDS	No violations found.
Wallace Machine Tool	600 Hollister Rd. Teterboro	RCRIS-LQG, FINDS	No violations found.
Greif Brothers Corp.	Malcolm Avenue	RCRIS-LQG, FINDS, UST	No RCRIS violations. Three active fuel oil UST on site.
Van Dusen Aircraft Supplies	Teterboro Airport Teterboro	RCRIS-LQG, FINDS	No violations found.
National Distillers & Chemical Corp.	Teterboro Airport, Hangar 16 Teterboro	RCRIS-SQG, FINDS	No violations found.

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Section 5
Site Reconnaissance Findings

5.1 Introduction

From March 9, 1998 through March 20, 1998, CDM conducted a walk-through of the buildings and grounds of the Airport. The existing property conditions of the property were observed and documented in field notes and by photographs as the walk-through proceeded. Selected site photographs are included in **Appendix C**. CDM was accompanied by representatives of the current property managers, Mr. Ron Petrella of APSI and representatives of the current tenants of the Airport. Where applicable, representatives were interviewed regarding the existing and historical conditions of the Airport leaseholds as well as any other Airport operational information.

CDM also spoke with representatives of regulatory agencies, including the NJDEP, Teterboro Building Department, New Jersey Department of Community Affairs, Bureau of Code Service and Regulatory Affairs, and the Hackensack Meadowlands Development Commission. A complete listing of these contacts is provided in **Appendix H.**

The following subsections discuss site reconnaissance findings with respect to identifying recognized environmental conditions (RECs):

- Hazardous substances
- Solid waste/non-hazardous waste
- Polychlorinated biphenyls (PCBs)
- Asbestos-containing materials (ACM)
- Storage tanks
- Herbicides and pesticides
- Potable and production water
- Wastewater, stormwater
- Lead-based paint

Additionally, at the request of the Port Authority, CDM evaluated levels of environmental compliance in the form of a permit inventory at the individual tenants facilities.

Table 5-1 includes a list of each facility at the Airport and the activities conducted at these facilities as observed or recorded during the site reconnaissance. The building locations and corresponding identification numbers are shown in **Figure 3-2** in Section 3. The information contained in this table was summarized from questionnaires completed by each tenant at the Airport as amended by CDM, based on the findings of the site reconnaissance. These questionnaires were prepared by CDM and distributed to the major tenants by APSI prior to the site reconnaissance. APSI did not send the questionnaire to the minor tenants, only to those tenants with a lease agreement with APSI. A questionnaire was also sent to Port Authority offices located in Hangar 121B.

TABLE 5-1
TETERBORO AIRPORT TENANT ACTIVITY SUMMARY

HANGER (H) or BUILDING (B) NO.	PRIMARY TENANT NAME	SUB-TENANT NAMES (if applicable)	FACILITY ACTIVITY CODE (see legend on last page)																	
			AF	AM	AP	AS	AW	AH	AD	CH	CS	ED	EM	ES	FS	MF	OA	PH	VF	VM	Other
H1	First Aviation	Executive Jet Aviation, Air Group, Horse Head Aviation, Hick Muse & Co., Hoffman LaRouche, Canadian Challenger, Inc.	X	X			X	X	X		X	X	X						X	X	
H2	Atlantic Aviation	Schiavone Construction, US Dept of Agriculture, US Customs, Advanced Flight Co.	X	X		X	X	X	X	X	X	X	X	X	X				X	X	
H3	Atlantic Aviation	Custom Aircraft Interiors, Loral Travel Services Chamarac, N.T. Air Co. H.I.S. Aviation Loral, I.A.M., Colgate Palmolive	X	X		X	X	X	X	X	X	X	X	X	X				X	X	
H4	Atlantic Aviation	711 Air Corp. Culbro P&E Properties Shamrock Aviation Colgate Palmolive Air Kelso Beta	X	X		X	X	X	X	X	X	X	X	X	X				X	X	
H5	Million Air	-	X	X		X	X	X	X		X		X		X					X	
B9	American Port Services, Inc	-									X	X	X	X						X	X
H12	Atlantic Aviation	Sony	X	X			X	X	X		X	X	X	X							
H14	Million Air	-	X	X		X	X	X	X		X		X	X						X	
H15	Signature Flight Support Group	Primac Air Carter Wallace Flight Services Group	X				X	X	X		X		X	X						X	

TABLE 5-1
TETERBORO AIRPORT TENANT ACTIVITY SUMMARY

HANGER (H) or BUILDING (B) NO.	PRIMARY TENANT NAME	SUB-TENANT NAMES (if applicable)	FACILITY ACTIVITY CODE (see legend on last page)																	
			AF	AM	AP	AS	AW	AH	AD	CH	CS	ED	EM	ES	FS	MF	OA	PH	VF	VM	Other
H16	Signature Flight Support Group	801 7th Avenue Group CVS Inc. J.P. Morgan Wham D.S. Associates	X	X			X	X	X		X		X	X						X	
H17	Signature Flight Support Group	Air Castle	X	X			X	X	X		X		X	X							
B25	Texaco, USA	-													X				X		
B27	American Port Services, Inc	-									X			X							
B34	Exxon Corporation, USA	Bob Malone, T/A Teterboro Exxon Service Center										X	X	X	X				X	X	
B40	American Port Services, Inc	(Lighting Vault)																	X		
B70	American Port Services, Inc	Federal Aviation Assoc. Signature Flight Support Group, Jet Cleaners, and three flight schools: Aircraft Charter Group Inc., Sparta, and Air Fleet.																			
B72	American Port Services, Inc	Teterboro School of Aeronautics, Creative Force New World Jet Jet Aviation		X								X	X								
H107	American International Aviation Corp.	NA		X			X	X	X		X	X	X	X							X
H109	Jet Aviation	East West Air, ROP, Corp.	X	X			X	X	X	X	X	X	X	X						X	

TABLE 5-1
TETERBORO AIRPORT TENANT ACTIVITY SUMMARY

HANGER (H) or BUILDING (B) NO.	PRIMARY TENANT NAME	SUB-TENANT NAMES (if applicable)	FACILITY ACTIVITY CODE (see legend on last page)																	
			AF	AM	AP	AS	AW	AH	AD	CH	CS	ED	EM	ES	FS	MF	OA	PH	VF	VM	Other
H111	Jet Aviation	Hertz Corp. Intercon Aviation, Falcon Jet Aviation, SAH Enterprises, The Galloway Group Western Publishing Group, P&E Properties, K-Services, GDL, Barnes & Noble	X	X			X	X	X	X	X	X	X	X							
B112	Jet Aviation	NA	X	X			X	X	X	X	X	X	X	X							
H113	Jet Aviation	NA	X	X	X		X	X	X	X	X	X	X	X							
H114	Jet Aviation	HIR/Accutron	X	X			X	X	X	X	X	X	X	X							
H118	Jet Aviation	NA	X	X			X	X	X	X	X	X	X	X							
H119	Jet Aviation	Falcon Jet	X	X			X	X	X	X	X	X	X	X							
H120	Plesi-North America	Jet Aviation	X	X			X	X	X	X	X	X	X	X							
H121A	First Aviation	NA												X							
H121B	Port-Authority of NY & NJ	NA	X	X	X			X			X	X	X	X						X	

NOTES ON ABBREVIATIONS AND TABLE ENTRIES

'NA' - No subtenant was identified. 'X' - Facility activity conducted

(AF) Aircraft Fueling
(AM) Aircraft Maintenance
(AP) Aircraft Painting
(AS) Aircraft Sales/Rental
(AW) Aircraft Sanitary Services
(AH) Aircraft Washing
(AD) Aircraft Deicing
(CH) Cargo Handling
(CS) Chemical Storage
(ED) Equipment Degreasing
(EM) Equipment Maintenance
(ES) Equipment Storage
(FS) Fuel Storage
(MF) Manufacturing
(OA) Apron Washdown
(PH) Pesticide Herbicide
(SC) Steam Cleaning
(VF) Vehicle Fueling
(VM) Vehicle Maintenance
(VP) Vehicle Painting

Note: None of the tenants checked the AH category; this was completed by CDM.

5.2 Hazardous Substances

This section discusses the hazardous materials used and hazardous waste generated at the Airport.

Hazardous Materials

Hazardous materials were observed throughout the occupied portions of the Airport during CDM's walk-through. As described in detail in Section 3, a large number of small quantity containers of hazardous materials are handled by the tenants throughout the occupied portions of the Airport. With the exception of the materials stored in these materials were found in containers ranging from pint containers to 55-gallon drums. Most of the smaller containers include lubricants, cleaners and glues and solvents. Drummed containers include oils, propylene glycol deicers, Safety-Kleen parts washers, lubricating oils and greases, machine oils, and fuels (kerosene, diesel). The greatest quantity of these materials was found in the maintenance hangars.

Approximately 45% of the Airport is 400 acres covered with concrete or macadam; the only portions not covered with an impervious material are the areas adjacent to or between the runways, taxiways and aprons. Consequently, the majority of the areas where hazardous materials are used or stored are covered with concrete or macadam, which minimizes the potential environmental impact in the event of an accidental discharge.

Generally, the tenants at the subject site exhibit satisfactory to exceptional housekeeping practices in the maintenance areas; many of the hangar floors are spotless and some appear to have been waxed. As listed below, certain other interior areas were observed to be stained with dark or oily materials:

- Hangar 1, First Aviation
- Boiler room, Atlantic Aviation, Hangar 3
- Propylene glycol AST area between Hangars 3 and 4
- Boiler room, Atlantic Aviation, Hangar 12
- Hangar 113, former drum storage area on macadam on 'land side' of hangar
- Fuel pump area at Building 40 (lighting vault)

Only the fuel pump area next to Building 40 is considered by CDM to represent a REC since the staining is located next to a stone and grass covered area (See Photograph 8 which is provided in **Appendix C**).

Hazardous Wastes

EDR reported 11 tenants or operators on the Airport are listed under the RCRIS database, which tracks the generation, transportation and disposal of hazardous wastes. **Table 5-2** summarizes which operations did or still are generating hazardous wastes.

Table 5-2 Hazardous Waste Generators at the Airport	
EDR Databases Category	**Tenant**
RCRIS - Small Quantity Generator (SQG)	Atlantic Aviation Corp Exxon Co USA #32007 (Service Station) PNA Aviation Corp Port Authority of NY & NJ
RCRIS - Large Quantity Generator (LQG)	Teterboro Airport Executive Jet Management Falcon Jet Corp First Aviation Services, Inc. Million Air Port Authority Helicopter Maintenance Facility Texaco Inc. Aviation Division

The EDR report contains data compiled for the RCRA and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRIS lists sites that generate, treat, store, or dispose (TSD) of hazardous waste as defined by RCRA. RCRIS includes reports on large (LQG) and small (SQG) quantity generators.

- A SQG generates between 100 kg and 1,000 kg (between 220 lbs and 2,220 lbs) per month of hazardous waste
- A LQG generates more than 1,000 kg of hazardous waste per month

The manifested wastes generated at the Airport are transported by Safety-Kleen and 95 Inc., according to the documents reviewed by CDM. The only continual waste stream identified were liquid wastes collected and transported off site by Safety-Kleen and 95 Inc., private commercial suppliers of parts washing devices. These units are self contained parts washers which the contractor removes and replaces or replenishes the solvent on a periodic basis ranging from two to eight times per year. Custom Aircraft Interiors (CAI) in Hangar 3 states that they do not generate hazardous wastes despite their use of solvents and fiberglass resins. Until September 1996, waste oils generated from automobile servicing were considered hazardous wastes in New Jersey (category "X" waste), consequently, the Exxon service station classifies part of their old hazardous waste stream as waste oils.

CDM is attempting to obtain further information from the seven LQGs regarding the makeup of their hazardous waste streams.

5.3 Solid Waste/Non-hazardous Waste

Solid waste collection and recycling for the Airport is performed by individual contractors for each of the tenants and sublets. Based on the site reconnaissance, three firms (Cilano, Interboro Disposal and Recycling, and Classic Sanitation) appeared to transport most of the Airport's solid waste.

A search was conducted for historic landfills, both through the environmental database and through requests to the EPA and NJDEP. As previously stated in Section 5.1, the database search reported three state solid waste facilities/landfills within an approximate one-half mile radius of the Airport. In CDM's opinion, none of these facilities are considered to pose a potential REC to the Airport.

5.4 Polychlorinated Biphenyls (PCBs)

The only potential source of PCBs observed during the walk-through were electrical transformers. Numerous pad-mounted transformers and electrical transformers and electrical substations are located throughout the Airport. None of the substations are said to contain PCBs. No evidence of leakage or spillage was observed on the transformer casing, or concrete pads. Not all transformers were labeled to identify the PCB content and CDM was not able to discern the manufacturer, type, or serial number.

According to APSI, all transformers and substations at the Airport are PCB free. A report addressing the PCB content of the electrical equipment was evidently prepared for the Port Authority in 1995; however, CDM was not provided with this document.

5.5 Asbestos-Containing Material (ACM)

The EPA has defined ACM as a material containing greater than 1 percent asbestos. ACM are assessed as being friable or non-friable. Friable materials can be pulverized into dust by finger pressure and have a higher potential for a fiber release than non-friable ACM. Non-friable ACM are materials which are firmly bound by plastic, cement, etc. and, if handled carefully, will not become friable.

Suspect ACM was observed in the form of pipe wrapping in Building 9 and Hangar 3 and in the form of pipe wrap and resilient floor tiles observed throughout nearly all the offices in the buildings and airport hangars. The floor tile was observed to be in good condition (i.e., not cracked or checked). CDM was not able to inspect the floor surfaces beneath carpeting in most of the offices. Based on the age of the building (e.g., pre-1980), there is a high probability that the tiles may be vinyl asbestos. There is no indication that ACM is present in other areas of the Airport based on the building and site plans. In addition, no information was obtained from records review and interviews to indicate that other ACM is present at the Airport.

APSI states that an asbestos survey of the entire Airport was conducted by the Port Authority several years ago. Their policy is to remove ACM when it is discovered.

CDM's scope of work did not include a detailed asbestos survey. CDM conducted only preliminary observation for ACM that would be evident from the visual walk-through. A formal asbestos survey would be required to document the presence, type, location, and condition of any ACM in the Airport buildings. In CDM's opinion ACM is present in the Airport.

5.6 Storage Tanks

Above Ground Storage Tanks (AST)

Thirty-eight ASTs were identified throughout the Airport. Eighteen of the tanks are located within the Airport and range from 275 to 3,200 gallons. These ASTs contain waste oil, fire suppression concentrate, and propylene glycol. Fifteen of the remaining ASTs are located in the Texaco and Exxon fuel farms on Malcolm Avenue. Consequently, CDM has divided the ASTs into two categories as follows:

- Tanks located at the fuel farms
- Tanks located at other identified areas of the Airport

Table 5-3 lists the ASTs which are located in the Exxon and Texaco Fuel Farms. These tanks are large, ranging in size from 10,000 to 30,000 gallons and are horizontally oriented, on tank cradles, located side by side.

The ASTs at the Texaco Fuel Farm are located within a concrete-block bermed, geotextile lined, secondary containment area. Stormwater and potential spills of fuels are collected in a center drain and discharged through a sand trap to a 2,000-gallon underground oil/water separator feed tank. As the feed tank fills, a level controller activates a surface-mounted pump to route the liquid to 3,300-gallon oil/water separator located within the containment area. The separated water is discharged to Berry's Creek sewer under authority of a NJPDES-Stormwater discharge permit (NJ0031194). The product is discharged to an aboveground holding tank located within the containment area.

The ASTs at the Exxon Fuel Farm are located within a bermed, gravel-lined, containment area. The Exxon system involves a large concrete pad surrounded by an underground perimeter collection system. A large overhead canopy covers the entire concrete pad and assists with stormwater management. The containment system includes floor drains which discharge to an oil/water separator system before the effluent is discharged to the sanitary sewer.

The AST Identification Number in the first column of **Table 5-3** corresponds to the identifiers on the inventory sheet provided by APSI, as shown on **Figure 3-2** in Section 3.

Table 5-3
ASTs Located at the Exxon and Texaco Fuel Farms

AST ID	Bldg./ Hangar	Contents	Size (gal)	Const.	Date of Installation	Tenant
E-19	23	AVGAS Fuel	12,000	Steel	1972	Texaco Fuel Farm
E-20	23	AVGAS Fuel	12,000	Steel	1972	Texaco Fuel Farm
E-21	23	AVGAS	12,000	Steel	1972	Texaco Fuel Farm
E-22	23	Jet A Fuel	30,000	Steel	1972	Texaco Fuel Farm
E-23	23	Jet A Fuel	30,000	Steel	1972	Texaco Fuel Farm
E-24	23	Waste Oil	3,300	Steel	1985	Texaco Fuel Farm*
E-25	23	Oil & Water	2,000	Steel	1972	Texaco Fuel Farm
E-54	24	Diesel Fuel	275	Steel	1990	Texaco Fuel Farm
Total AST storage capacity at Texaco:			101,575	Avg. Age:	23 years	
E-27	24	AVGAS Fuel	10,000	Steel	1972	Exxon Fuel Farm
E-28	24	AVGAS Fuel	10,000	Steel	1972	Exxon Fuel Farm
E-29	24	AVGAS Fuel	10,000	Steel	1972	Exxon Fuel Farm
E-30	24	Jet A Fuel	10,000	Steel	1972	Exxon Fuel Farm
E-31	24	Jet A Fuel	10,000	Steel	1972	Exxon Fuel Farm
E-32	24	Jet A Fuel	10,000	Steel	1972	Exxon Fuel Farm
E-33	24	Jet A Fuel	10,000	Steel	1972	Exxon Fuel Farm
E-34	24	Jet A Fuel	20,000	Steel	1980	Exxon Fuel Farm
E-35	24	Waste Oil	1,000	Steel	1994	Exxon Fuel Farm*
-	24	AVGAS Fuel	275	Steel	-	Exxon Fuel Farm
-	24	Jet A Fuel	10,000	Steel	1998	Exxon Fuel Farm[1]
Total AST storage capacity at Exxon:			101,275	Avg. Age:	21 years	

* *Oil/Water Separator System*

Note 1: The 10,000-gallon Jet A tank was placed on-site after CDM completed the Exxon site reconnaissance; it was not there at the time of the scheduled appointment with Exxon. Although this tank is not located close to the other tanks, it is under the canopy and, as such, is within the secondary containment mechanism.

Table 5-4 summarizes the remaining ASTs at the Airport. These were identified by CDM during the site reconnaissance and information on these tanks was provided by the tenant or APSI at the time of the site reconnaissance.

Table 5-4
Airport ASTs Not Within the Exxon and Texaco Fuel Farms

Tenant	Bld./ Hangar	Size (gal)	Contents	Type	Comments	Location
AIAC	107	750	Fire Suppression Foam Concentrate	Poly	Secondary containment	Interior, fire suppression room
Atlantic Aviation	2	300	Waste oil	Steel	Out-of-service, secondary containment	Exterior, north of hangar
Atlantic Aviation	3	3,200	Type II propylene glycol	Poly	Secondary containment	Exterior, north of hangar
Atlantic Aviation	4	750	Fire Suppression Foam Concentrate	Poly	Secondary containment	Interior, fire suppression room
Jet Aviation	111	2,000	Propylene glycol	Poly		Exterior, north of hangar
Jet Aviation	111	1,500	Propylene glycol	Poly		Exterior, north of hangar
Jet Aviation	113	750	Fire Suppression Foam Concentrate	Poly		Interior, fire suppression room
APSI	33	275	Empty	Steel	Out-of-service	Exterior, north of building
APSI	72	275 275 275	Aviation fuel Empty Empty	Steel Steel Steel		Exterior, northwest of building
APSI	9	275 275	Waste Oil Empty	Steel		Exterior, north of building
Million Air	5	1,500	Propylene glycol	Poly		Exterior, north of hangar
Million Air	14	275 275 275	Waste fuel Empty Empty	Steel Steel Steel		Exterior, north of hangar
Signature FSG	15	1,500	Propylene glycol	Poly		Exterior, east of hangar
Exxon S/S	34	245	Waste oil	Steel		Interior, garage bay area

Notes:
AIAC - American International Aviation Corporation
APSI - American Port Services, Inc.
Signature FSG - Signature Flight Support Group
S/S - Service Station

No staining or evidence of discharges were observed in the area of these ASTs. All of these ASTs were observed to be in generally good condition and were located on macadam or concrete.

Underground Storage Tanks (UST)

According to APSI records, the USTs listed in **Table 5-5** remain at the Airport. The oil/water separators are included in this section because NJDEP has maintained that, unless design criteria for the oil/water separator shows the oil storage tank is integral to the separator unit, they consider all oil/water separators to meet the definition of an UST. This is due to the fact that older oil/water separators, and all of the ones at the Airport, were designed with the oil storage tank separate from the actual separator. Newer oil/water separators are designed as one-piece units without a separate oil storage tank and are not covered by the UST regulations because they are classified as a flow-through unit. According to Mr. Charles Kurtz of APSI he may attempt to persuade NJDEP away from this interpretation. CDM interprets the New Jersey UST regulations as applicable to the oil/water separators at the Airport. In summary, a total of 24 active USTs currently exist at the Airport.

Table 5-6 summarizes the information provided to CDM by Mr. Kurtz or obtained from the historical research regarding the USTs which have been taken out of service at the Airport. Some of the dates are estimates based on Mr. Kurtz's 20-year tenure at the Airport; other dates are obtained from information found in APSI or NJDEP files. In summary, few of the former USTs have documentation on the closure or data from post-excavation soil samples which demonstrates the integrity of the tank. Without supporting analytical data, CDM cannot confirm whether the tank closures are complete and, consequently, cannot discount them as a REC.

Table 5-7 lists the areas where CDM observed evidence of potential USTs (i.e., fill ports or vent lines) during the site reconnaissance. Neither APSI or the tenant could explain what these suspected features represented, hence, in CDM's opinion these areas are a potential REC.

Table 5-5
Active USTs at the Airport

Tenant	Bld./ Hangar	UST ID	Contents	Size (gallon)	Construction	Date of Installation
Atlantic Aviation	4	E-4	Waste Oil from Oil\Water Separator	550	Steel	1981
Atlantic Aviation	4	E-5	Waste Oil from Oil\Water Separator	550	Steel	1981
Atlantic Aviation	3	E-55	Waste Oil from Oil\Water Separator	500	Steel	1990
Exxon Fuel Farm	24	E-35	Waste Oil from Oil\Water Separator	750*	Steel	1980
Exxon S/S	34	E-37	Unleaded gasoline	6,000	Fiberglass	1973
Exxon S/S	34	E-38	Unleaded gasoline	6,000	Fiberglass	1973
Exxon S/S	34	E-39	Unleaded gasoline	6,000	Fiberglass	1973
Exxon S/S	34	E-41	Waste Oil from Oil\Water Separator	1,000	Steel	1973
Jet Aviation	111	E-43	Waste Oil from Oil\Water Separator	550	Steel	1980
Jet Aviation	113	E-44	Waste Oil from Oil\Water Separator	550	Steel	1979
Jet Aviation	113	E-45	Waste Oil from Oil\Water Separator	550	Steel	1979
Jet Aviation	114	E-46	Waste Oil from Oil\Water Separator	280	Steel	1972
Jet Aviation	114	E-47	Waste Oil from Oil\Water Separator	50	Steel	1972
Jet Aviation	118	E-48	Waste Oil from Oil\Water Separator	250	Steel	1971
Jet Aviation	119	E-49	Waste Oil from Oil\Water Separator	250	Steel	1971
Jet Aviation	120	E-50	Waste Oil from Oil\Water Separator	250	Steel	1971
APSI	40	E-52	Diesel Fuel	1,500	Steel	1969
APSI	9	E-9	Heating oil	1,000	Steel	Pre-1970
Million Air	14	E-13	Waste Oil from Oil\Water Separator	550	Steel	

Tenant	Bld./ Hangar	UST ID	Contents	Size (gallon)	Construction	Date of Installation
Million Air	5	E-8	Waste Oil from Oil\Water Separator	550	Steel	1984
Port Authority of NY/NJ	121	E-51	Waste Oil from Oil\Water Separator	250	Steel	1971
Signature Flight Support Group	16	E-17	Waste Oil from Oil\Water Separator	100	Steel	1961
Signature Flight Support Group	17	E-18	Waste Oil from Oil\Water Separator	50	Steel	1968
Texaco Fuel Farm	23	E-25	Waste Oil from Oil\Water Separator	2,000	Steel	1972

Notes:

* - *Exxon replaced the old 750-gallon waste oil UST with a new 750-gallon waste oil UST.*

- Shaded tanks are motor fuel tanks regulated by NJDEP.

Table 5-6
Removed/Inactive USTs at the Airport

Tenant	Bldg./ Hangar	UST ID	Contents	Size (gallon)	Constr.	Date of Inst./Removal	Comments
Atlantic Aviation	2	E-2	Heating oil	4,000	Steel	1982 / 1988	Soil samples collected with analytical data below clean-up criteria. No correspondence from NJDEP available.
Atlantic Aviation	2		Unleaded gasoline	1,000	Steel	Pre-1956/1989	
Atlantic Aviation	2		Leaded gasoline	1,000	Steel	Pre-1956/1988	
Atlantic Aviation	2		Waste oil	275	Steel	Pre-1956/1982	Decommissioned, no other information available.
Atlantic Aviation	3	E-3	Heating oil	5,000	Steel	Pre-1956/1988	Case#88-03-03-1143, case closed by NJDEP.
Atlantic Aviation	3		Waste oil	1,000	Steel	Pre-1956/1988	
Atlantic Aviation	3		Waste oil	275	Steel	Pre-1956/1968	Decommissioned, no other information available.
Atlantic Aviation	12	E-12	Heating oil	3,000	Steel	1956 / 1989	No information available.
Atlantic Aviation	12		Waste oil	275	Steel	NA / 1986	No information available.
Atlantic Aviation	49	A-2	Diesel fuel	515	Steel	1961 / 1988	Soil samples reportedly collected per UST closure procedure; however, no analytical laboratory results were available
AIAC	107	A-7	Heating oil	550	Steel	1987 / 1993	No information available.

Tenant	Bldg../ Hangar	UST ID	Contents	Size (gallon)	Constr.	Date of Inst./Removal	Comments
Exxon Service Station	34	E-40	Waste oil	1,000	Fiber-glass	1984 / 1990	Case#91-02-28-1432, According to NJDEP, a Remedial Action Workplan addressing ground water and soil contamination due in March 1997 has not been submitted
Exxon Service Station	34						Former USTs located on the leasehold according to Phase I Environmental Investigation Report, July 19, 1991. The size, contents, or date of removal of the USTs was not available.
Exxon Service Station	34						
First Aviation	1	E-1	Heating oil	1,000	Steel	1961 /1 989	Case closed under ECRA Case No. 87239
First Aviation	1		Waste oil	550	Steel	1961 / 1989	
APSI	9	E-10	Diesel	4,000	Steel	Pre-1970/1991	Case No. 90-10-12-1412, case closed by NJDEP.
APSI	27	E-36	Heating oil	1,000	Steel	1955/1991	
APSI	70	E-42	Heating oil	5,000	Steel	1955/1987	Five USTs to be removed according to a December 1986 cost proposal. Bill of lading for contaminated soils disposal exists. No NJDEP correspondence or analytical data available.
APSI	72	E-3	Diesel	4,000	Steel	Pre-1970/1987	
APSI	72	E-4	Waste oil	4,000	Steel	Pre-1970/1987	
APSI	72		Diesel	4,000	Steel	Pre-1970/1987	
APSI	72		Diesel	4,000	Steel	Pre-1970/1987	
Million Air	5	A-5	Av. fuel	2,000	Steel	Pre-1970/1989	Case No. 89-10-26-1153, tenant expects NJDEP closure soon.
Million Air	5	A-6	Av. fuel	2,000	Steel	Pre-1970/1989	
Million Air	5	E-6	Av. fuel	4,000	Steel	Pre-1970/1989	
Million Air	5	E-7	Av. fuel	4,000	Steel	Pre-1970/1989	
Million Air	14	A-1	Heating oil	1,000	Steel	1956 / 1988	Samples collected, no contamination reported. No other information available.

Tenant	Bldg./ Hangar	UST ID	Contents	Size (gallon)	Constr.	Date of Inst./Removal	Comments
Signature	15	-	Waste Oil			Not provided	According to Signature, clean-up criteria have been met and the NJDEP will close the case upon sealing of the monitoring wells. No NJDEP correspondence or laboratory analytical data were reviewed.
Signature	16	C-1	Waste oil	550	Steel	1961 / 1989	Case closed as ECRA Case No. 87239
Signature	16	E-14	Av. fuel	10,000	Steel	1961 / 1989	
Signature	16	E-15	Av. fuel	10,000	Steel	1961 / 1989	
Signature	16	E-16	Av. fuel	550	Steel	1961 / 1989	
Texaco Fuel Farm		E-26	Slop fuel	750		1997	Case No. 97-10-28-1426 is ongoing. Remedial Investigation Report submitted to NJDEP on January 20, 1998. A groundwater remedial investigation is expected.
Exxon Fuel Farm		E-35					Active ground water investigation being conducted without NJDEP oversight. Off-site contamination a concern.
Exxon Service Station	34	-	Hydraulic oil			Updated 1988	Groundwater monitoring wells at perimeter of property; status of investigation unknown.

Legend
AIAC - American International Aviation Corporation,
APSI - American Port Services, Inc.
Av. fuel - Aviation gas
ECRA - Environmental Cleanup Responsibility Act; replaced by Industrial Site Recovery Act (ISRA) in 1993.
Slop fuel - waste fuel examined for water and particulates before a bulk delivery is made.
NJDEP - New Jersey Department of Environmental Protection

Table 5-7
Possible UST Locations Observed During Site Reconnaissance

Tenant	Bld./ Hangar	Location	Comments
Jet Aviation	111	Fill port in hallway near maintenance room	Fill port labeled as "fuel oil".
Jet Aviation	113	Vent line & fill port on 'land' side of hangar	Fill port appeared to be of fuel oil type.
American Port Services, Inc.	72	Two vent lines within Teterboro Aeronautical School.	Source of vent lines could not be determined at time of inspection. APSI representatives had no knowledge of USTs in the area.
Atlantic Aviation	3	Vent line and large diameter fill port outside of boiler room.	Source of vent lines could not be determined at time of inspection. UST reportedly removed.

5.7 Herbicides and Pesticides

Based on CDM's site walk-through, records review, and interviews, no herbicide or pesticide usage information specific to the Airport could be found. It is possible that pesticides and herbicides have been used in the past at the Airport for weed and pest control or agricultural purposes. Mr. Ron Petrella of APSI stated that the individual tenants may contract with pesticide control or landscape firms, but would not be required to notify APSI or the Port Authority. Mr. Petrella stated that they were required to obtain a permit to destroy goose eggs, but had no knowledge of other animal or pest control problems. No evidence has been found in the historical review to suggest that pesticides or herbicides have had an adverse environmental impact on the Airport.

5.8 Potable and Production Water

Potable water to the Airport is provided by the Bergen County Municipal Utility Authority. No evidence or record of any on-site production wells were observed during the site inspection or noted in the record reviews. No production water (i.e., non-contact cooling water), other than any water used in the air conditioning units, is used at the site.

5.9 Wastewater and Stormwater

Wastewater

Disposal of sanitary wastewater generated at the Airport is provided by the Bergen County Municipal Utility Authority. However, two on-site septic systems existed at the Airport. One system served Hangar 15, the other system served Hangar 16, both of which were occupied by Signature. The systems were reportedly used to dispose of sanitary wastes as well as water from the oil/water separator. These system were in place between 1954 and 1974, when they were disconnected and replaced by a connection to the sanitary sewer. According to Mr. Kurtz, no other buildings at the Airport were ever connected to a septic system.

Water from the oil/water separators and roof drains are discharged to the sanitary sewer, with the exception of the effluent from the oil/water separators servicing Hangars 17, 118, 119, 120 and 121. According to Mr. Kurtz, the water from the oil/water separators and roof drains at those five hangars is discharged to the sanitary sewer.

Stormwater

Stormwater generated on the Airport is due to sheet flow from the surface runoff to drainage ditches from precipitation events. As most of the site is unpaved and little slope exists, much of the stormwater runs off the site as sheet flow or collects in pools and percolates into the ground.

According to Mr. Kurtz, no formal stormwater management plan is in place at the Airport. Stormwater collected from the Airport is diverted via a series of underground conveyances to one of 17 point discharges located along the east, west, and southern perimeters. A perimeter trench located along the north, east and southern borders of the Airport was full of water at the time of CDM's site reconnaissance. According to Mr. Kurtz, two of the seventeen outfalls (001 and 002) are permitted by NJDEP. Outfall 001 is located along the southeast corner of the Airport, near the corner of Moonachie Avenue and Redneck Avenue. Outfall 002 is located along the west border of the Airport adjacent to a pump station.

Spent deicing fluids are collected by conveyances located in and outside of the hangars and directed to the outfalls.

Mr. Kurtz stated they have received no violations regarding stormwater management at the Airport, with exception to administrative submittals unrelated to effluent quality. Additional information on the stormwater management is needed for CDM to render an opinion on the stormwater permit compliance.

5.10 Lead-Based Paint

Based upon the age of the office buildings, it is possible that lead-based paint may be present at the Airport. Section 1017 of the Residential Lead Based Paint Hazard Reduction Act of 1992, commonly referred to as Title X ("Title Ten") because it was enacted as Title X of the Housing and Community Development Act of 1992 (Public Law 102-550) defines lead based paint as "...any paint, varnish, stain or other applied coating that has 1 mg/cm^2 (or 5,000 μg/g by dry weight) or more of lead." No reference to lead-based paint specific to the Airport could be found in the records review or interviews.

The manufacture of lead-based paint was banned in 1978 by the Consumer Protection Safety Commission; therefore, the probability that lead-based paint exists in certain, newer buildings on the site is considered to be high. However, the presence of lead-based paint at the subject properties cannot be determined without a site specific survey of this category.

5.11 Radon

Radon is a colorless, odorless, and tasteless gas that comes from the natural breakdown of uranium. The EPA has established a guideline of 4.0 picocuries per liter (pCi/L) for exposure to radon gas. This guideline is technology based and derived from health effects that would be anticipated by

exposure to radon gas in an indoor environment over a lifetime of 70 years. According to the EDR report, average interior radon levels in Bergen County, New Jersey are expected to be less than 2.0 pCi/L .

5.12 Environmental Permits and Compliance

This section presents the findings of an environmental permit evaluation of the Airport. CDM compiled readily available information regarding environmental-related permits for air pollution control devices, USTs, ASTs, stormwater and wetlands held by the Airport manager and tenants. Since this ESA is not a compliance audit, CDM did not evaluate the status or appropriateness of these permits.

In summary, based on the review of information and site reconnaissance, the completeness of environmental permits at the Airport is generally appropriate. APSI maintains records on environmental issues of concern for an airport such as underground storage tanks and storm water management. Management of hazardous materials and wastes is left largely up to the tenants. The mechanisms in place for the Port Authority and APSI to oversee permits is satisfactory although, to a large extent, it is the tenants responsibility to notify APSI when an activity which may require a permit is planned.

Table 5-8 includes a list of each facility at the Airport and the permits they currently maintain or obtained to comply with environmental regulatory programs. The information contained in the table was summarized from questionnaires completed by each tenant at the Airport as amended by CDM, based on the findings of the site reconnaissance.

Air Pollution Control Permits

Devices or equipment which emits air contaminants may be regulated by the NJDEP's, Bureau of New Source Review (BNSR). Such regulated units will require a permit to construct/install/alter and a certificate to operate, which must be renewed every five years.

The only air pollution control permits made available to CDM were for a 2.784 million btu/hr natural gas-fired boiler located at the APSI building at 90 Moonachie Avenue (Building 72). The first permit was initially applied for in 1991 and the most recent renewal application is dated April 1996. No other air pollution control permits were reported to CDM, including the absence of a permit on the maintenance shop venting systems.

Underground Storage Tanks

USTs containing petroleum substances in New Jersey are generally regulated by the NJDEP, Bureau of Underground Storage Tanks (BUST). Certain USTs, such as tanks with a capacity of 2,000 gallons or less used to store heating oil for on-site consumption in a nonresidential building, are exempt.

APSI provided CDM with a copy of a BUST registration questionnaire where 43 USTs totaling over 80,000 gallons of capacity were registered with NJDEP. Neither the date of the document nor the signatory of the questionnaire can be discerned in the copy. The Port Authority is identified as the owner in this document. According to Mr. Kurtz, APSI prepared and submitted the BUST

TABLE 5-8
TETERBORO AIRPORT TENANT PERMIT SUMMARY

HANGER (H) or BUILDING (B) NO.	PRIMARY TENANT NAME	SUB-TENANT NAMES (if applicable)	FACILITY ACTIVITY CODE (see legend on last page)											
			Air	AST	ACM	B/Z	FD	RCRA	NJPDES	Spill	UST	UST Closure	W&M	Other
H1	First Aviation	Executive Jet Aviation, Air Group, Horse Head Aviation, Hick Muse & Co., Hoffman LaRouche, Canadian Challenger, Inc.						●				●		
H2	Atlantic Aviation	Schiavone Construction, US Dept of Agriculture, US Customs, Advanced Flight Co.						●				●		
H3	Atlantic Aviation	Custom Aircraft Interiors, Loral Travel Services Chamarac, N.T. Air Co. H.I.S. Aviation Loral, I.A.M., Colgate Palmolive						●		●		●		
H4	Atlantic Aviation	711 Air Corp. Culbro P&E Properties Shamrock Aviation Colgate Palmolive Air Kelso Beta												
H5	Million Air	-								●		●		
B9	American Port Services, Inc	-								●		●		
H12	Atlantic Aviation	Sony										●		
H14	Million Air	-										●		
H15	Signature Flight Support Group	Primac Air Carter Wallace Flight Services Group												

TABLE 5-8
TETERBORO AIRPORT TENANT PERMIT SUMMARY

HANGER (H) or BUILDING (B) NO.	PRIMARY TENANT NAME	SUB-TENANT NAMES (if applicable)	FACILITY ACTIVITY CODE (see legend on last page)											
			Air	AST	ACM	B/Z	FD	RCRA	NJPDES	Spill	UST	UST Closure	W&M	Other
H16	Signature Flight Support Group	801 7th Avenue Group CVS Inc. J.P. Morgan Wham D.S. Associates												
H17	Signature Flight Support Group	Air Castle										●		
B25	Texaco, USA (fuel farm)	-		●				●	●		●			
	Exxon, Corporation, USA (fuel farm)	-		●				●		●	●			
B27	American Port Services, Inc	-								●		●		
B34	Exxon Corporation, USA	Bob Malone, T/A Teterboro Exxon Service Center						●			●	●	●	
B40	American Port Services, Inc	(Lighting Vault)												
B70	American Port Services, Inc	Federal Aviation Assoc. Signature Flight Support Group, Jet Cleaners, and three flight schools: Aircraft Charter Group Inc., Sparta, and Air Fleet.												
B72	American Port Services, Inc	Teterboro School of Aeronautics, Creative Force New World Jet Jet Aviation	●											
H107	American International Aviation Corp.	NA						●				●		
H109	Jet Aviation	East West Air, ROP, Corp.												

TABLE 5-8
TETERBORO AIRPORT TENANT PERMIT SUMMARY

HANGER (H) or BUILDING (B) NO.	PRIMARY TENANT NAME	SUB-TENANT NAMES (if applicable)	FACILITY ACTIVITY CODE (see legend on last page)											
			Air	AST	ACM	B/Z	FD	RCRA	NJPDES	Spill	UST	UST Closure	W&M	Other
H111	Jet Aviation	Hertz Corp. Intercon Aviation, Falcon Jet Aviation, SAH Enterprises, The Galloway Group Western Publishing Group, P&E Properties, K-Services, GDL, Barnes & Noble												
B112	Jet Aviation	NA												
H113	Jet Aviation	NA						●			●			
H114	Jet Aviation	HIR/Accutron												
H118	Jet Aviation	NA												
H119	Jet Aviation	Falcon Jet						●						
H120	Plesi-North America	Jet Aviation												
H121A	First Aviation	NA												
H121B	Port-Authority of NY & NJ	NA						●						

NOTES ON ABBREVIATIONS AND TABLE ENTRIES

'NA' - No subtenant was identified. '●' - Permit Identified

Air	Air Pollution Control Permit	NJPDES	New Jersey Discharge Elimination Permit
AST	Above Ground Storage Tank	RCRA	Hazardous Waste Permit
ACM	Asbestos Containing Material	Spill	Spill Response/Hotline
B/Z	Building & Zoning	UST	Underground Storage Tank
FD	Fire Department	W&M	Weights and Measures (for fuel dispensing equipment)

registration questionnaire for all tenants in 1986, when the UST registration requirement in New Jersey was enacted. He stated that they later learned that some of the tenants had also submitted BUST registration questionnaires on their own, thus creating a duplicate record of the same tank. Mr. Kurtz stated this matter took several years to resolve with NJDEP and this issue is no longer a problem.

Five USTs containing diesel fuel, heating oil, and unleaded gasoline exist at the Airport. The three unleaded gasoline USTs located at the Exxon Service Station are registered with NJDEP. These USTs are constructed of fiberglass and are equipped with spill, overfill, and leak detection equipment. Based on the information reviewed by CDM, these USTs meet the December 1998 federal UST requirements.

The diesel UST is located approximately 75 feet west of the lighting vault located near the center of the Airport. This UST (ID No. 52) was included in the initial BUST registration questionnaire. There is no information if corrosion, spill, overfill, or leak detection equipment have been installed on this tank. According to Mr. Kurtz, it is unlikely the tank has been so equipped. This tank would need to be upgraded, replaced, or taken out of service by December 1998 in order to meet the federal UST requirements.

Nineteen USTs used to store separated oil from the oil/water separators effluent exist at the Airport. NJDEP has maintained that, unless the design of the oil/water separators shows the oil tank is integral to the separator unit, the oil/water separator meets the definition of an UST. Mr. Kurtz states that he may attempt to persuade NJDEP that such units are not true USTs and should not be treated as regulated tanks. Unless NJDEP reverses current policy, these nineteen oil/water separators at the Airport will be considered USTs and must meet the upgrade requirements by December 1998 or be taken out of service to avoid possible enforcement action. Consequently, the oil storage tank for the oil/water separator at the Exxon Fuel Farm is also a regulated tank; the oil storage tank for the oil water separator at the Texaco Fuel Farm is an AST and thus not addressed by the BUST regulations.

Above Ground Storage Tanks

ASTs in New Jersey are regulated by the NJDEP, under the Discharge of Hazardous Substances (DHS) regulations (N.J.A.C. 7:1E). Major facilities, where total storage capacity of hazardous substances and petroleum hydrocarbons exceed 200,000 gallons, must prepare Discharge Prevention, Containment and Countermeasure (DPCC) plans and Discharge Cleanup and Removal (DCR) plans. Tanks exceeding 2,000 gallons in capacity are required to have overfill protection devices and tank car/tank truck loading areas are required to have secondary containment.

The Texaco and Exxon Fuel Farms located on Malcolm Avenue are currently equipped with secondary containment mechanisms. With the exception of the 2,000-gallon propylene glycol tank at Hangar 111 (Jet Aviation), all the ASTs observed at the Airport either meet the secondary containment requirement or are not required to be so equipped.

Stormwater

The Federal Clean Water Act Amendment of 1972 (CWA) prohibits the discharge of pollutants to the waters of the United States from point sources unless the discharge is in compliance with the requirements of the National Pollutant Discharge Elimination System (NPDES). The 1987 amendment to the CWA, known as the Water Quality Act, added Section 405 which altered the regulatory approach to control pollutants in stormwater discharges by adopting a phased and tiered approach. The tiered approach requires that stormwater associated with industrial activity must comply with Sections 301 and 402 of the CWA. The NPDES permits issued for stormwater allow for regulation of the stormwater discharges and for monitoring of sources of stormwater pollution.

In New Jersey, the federal NPDES program is delegated to the NJDEP, under the New Jersey Pollutant Discharge Elimination System (NJPDES). NJDEP requires facilities to ensure that they do not discharge, through storm sewers to surface waters, any domestic wastewater, non-contact cooling water or process wastewater unless it is authorized by a NJPDES permit.

No commercial activities are performed outside hangars, thus maintenance work on the aircraft is not a NJPDES-applicable activity at the Airport (e.g., goes through an oil/water separator before leaving off-site). However, aircraft deicing operations are conducted by the Fixed Base Operators at various locations at the Airport. Spent deicing fluids are collected by catch basins located outside of the hangars and flow to unpaved area where they drain into the soil. The effluent collected by the catch basins is then directed to the storm sewer for discharge into a receiving water body via one of seventeen outfalls located at the perimeter of the Airport. According to APSI, two of the seventeen outfalls have NJPDES permits. Outfall ID 001 discharges to East Riser Ditch located at a point east of Hangar 121 before exiting the Airport at Moonachie Avenue. Outfall ID 002 discharges to West Riser Ditch/Berry's Creek at a point northwest of Hangar 5. Based on the information provided to CDM, it is not clear if all deicing activities are performed near catch basins with a NJPDES-permitted outfall.

Freshwater Wetlands

Freshwater wetlands in New Jersey are governed jointly by the NJDEP under the Freshwater Wetlands Protection Act (N.J.S.A. 12:3-1) and the US Army Corps of Engineers under Section 404 of the Clean Water Act.

According to a 1987 map prepared by Louis Berger & Associates entitled "Teterboro Airport Wetlands," almost the entire south portion of the Airport from Taxiway F is a wetland or transition zone. According to Mr. Kurtz of APSI, approximately 23 acres of land in this area were filled to stabilize the ground for future development of the Airport. The Army Corps and NJDEP intervened, stopped work and assessed penalties. APSI has been working with these agencies since that time to resolve the matter. According to an April 10, 1998 letter from the Army Corps to legal counsel for APSI/Johnson Controls (**Appendix H**) the mitigation plan, which calls for constructing wetlands at the Hackensack Meadowlands Development Commission, was approved.

According to the April 10, 1998 letter, further placement of fill on the Airport will be allowed as soon as the transfer of funds for the implementation of the mitigation project is completed.